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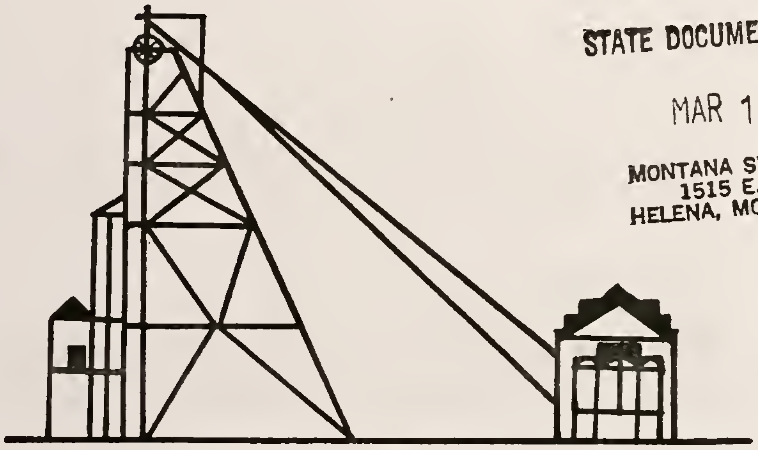

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# CULTURAL RESOURCE INVENTORY AND EVALUATION
# Of Selected Mines in Park County - II

for

The Montana Department of State Lands

November 1987

**GCM SERVICES INC.**
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# CULTURAL RESOURCE INVENTORY AND EVALUATION

# Of Selected Mines in Park County - II

for

The Montana Department of State Lands
1625 - 11th Ave.
Helena, Montana 59601

by

Brian Shovers
Cultural Resource Division
GCM Services, Inc.
P. O. Box 3047
Butte, Montana 59702

Report No. 92-9-87

November 1987

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# ABSTRACT

A cultural resource inventory of 10 abandoned coal mine sites within the Park County portion of the Livingston coal field was conducted for the Department of State Lands Abandoned Mine Reclamation Program during September and October of 1987. The mine sites within the Cokedale District are: Cokedale 1 (24PA782), Cokedale 2 (24PA781), Buckskin (24PA783), the Number 30 (24PA784) and Dilulo East and West (24PA785). The mines in the Trail Creek District are: Maxey North (24PA786), Maxey South (24PA787), Maxey West (24PA793), Morrison (24PA-788) and the Kountz (24PA789). The period of activity at these underground mines extends from 1881 to 1937, and the coal was sold for both domestic and industrial use.

Three prehistoric sites are located within the Maxey North and South mine areas: Maxey Cellar site (24PA796), Old Trail (24PA797), and Maxey Corral site (24PA798). All three prehistoric sites contain subsurface materials and are considered to be potentially eligible to the National Register, however, a more complete understanding of the sites' significance will come only from testing of the deposits.

Only two of the historic sites were recommended as eligible for the National Register of Historic Places: Cokedale 1 (24PA782) and the Maxey North site (24PA786). At each of these sites little remains of historic mining structures and the integrity of remaining structures has diminished over time, but in both cases enough remains to evoke a feeling of an earlier period of intense industrial activity within an otherwise agricultural setting. These two sites would qualify for eligibility under Criteria A and D. Little remains of historic value at any of the other eight sites, therefore none are considered eligible for listing on the National Register of Historic Places.

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## INTRODUCTION

In November of 1986 GCM Services, Inc. in Butte, Montana was contracted by the Montana Department of State Lands (DSL) to perform a cultural resource inventory and evaluation of selected abandoned coal and hardrock mines in Montana.

In the interest of public safety and health the DSL, as part of its abandoned mines reclamation project, plans to seal mine adits, remove any unsafe structures and either remove or reclaim tailings and coal spoil dumps.

This report presents the results of the inventory of selected mine sites in the Park County portion of the Livingston Coal Field. Figure 1 shows the location of the sites on a USGS quadrangle map. The text describes the physical setting, historic background and present state of the mine sites within the Cokedale District. A discussion of the prehistoric background and histories of other mines in the Livingston Coal Field can be found in GCM report by Gene Munson (1987). Mine sites are: Cokedale 1 (24PA782), Cokedale 2 (24PA781), Buckskin (24PA783), the Number 30 (24PA784) and Dilulo East and West (24PA785). The mines in the Trail Creek District are: Maxey North (24PA786); Maxey South (24PA787), Maxey West (24PA793), Morrison (24PA788), and the Kountz (24PA789). Three prehistoric sites are located within the Maxey North and South mine areas: Maxey Cellar site (24PA796), Old Trail (24PA797), and Maxey Corral site (24PA798).

Site inventory forms for each mine site and the prehistoric sites make up Appendix A. For each site there is detailed information on the existing features, a historic discussion and an evaluation of the site in terms of its contribution to the history of southwestern Montana. Maps and photographs supplement the written material. These site forms remain on file at the state repositories of the State Historic Preservation Office, Helena, and the Department of Anthropology, University of Montana, Missoula.

Field investigations were conducted in September and October of 1987 by Tom Jerde, Brian Shovers and Jim Duran. The project maps were prepared by Jim Duran and the report was edited by Paul Anderson and Lynn Fredlund. All field notes, photographs and supportive information resulting from the cultural resource fieldwork will be maintained at the office of GCM Services, Inc., Butte, Montana.

Legal descriptions of the mine sites are:

T2S R8E:

Cokedale 1 - NE1/4 NW1/4 Section 26
Cokedale 2 - SW1/4 SW1/4 Section 22
Buckskin - NW1/4 Section 28
Dilulo - East - NE1/4 Section 32
West - NE 1/4 Section 31
No. 30 - SW1/4 SE1/4 Section 30

T3S R8E

Kountz - SE1/4 NW1/4 Section 20
Morrison - SW1/4 SW1/4 Section 17
Maxey North - SE1/4 NE1/4 Section 28
Maxey South - NE1/4 SE1/4 Section 34
Maxey West - NW1/4 SE1/4 Section 28

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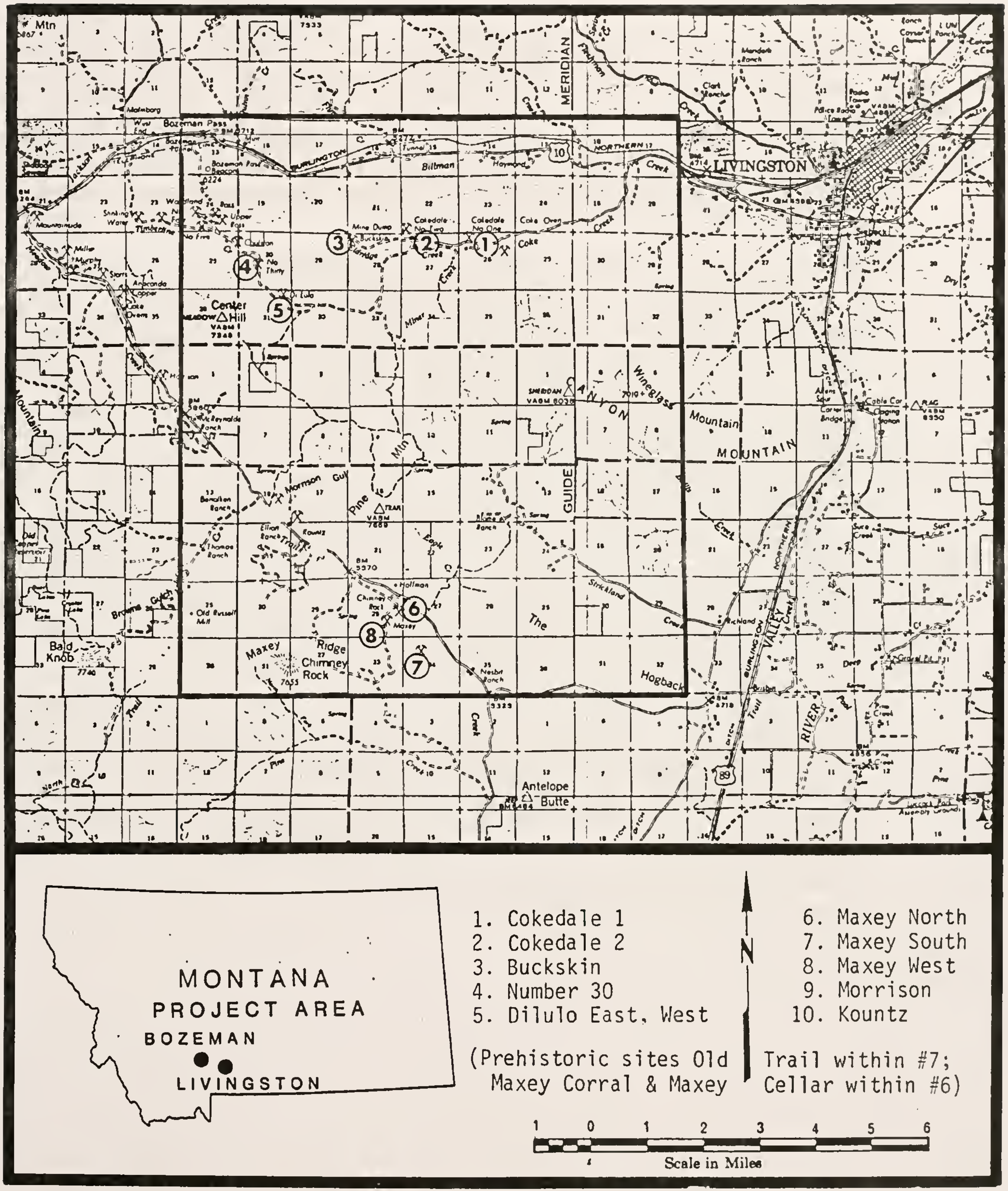

Figure 1. Site map of project area.

## PHYSICAL SETTING

This group of 10 underground coal mines is located on the eastern slope of the Rocky Mountains approximately equidistant from Bozeman and Livingston, Montana. The mines are situated in two rather narrow mountain valleys drained by creeks that eventually make their way into the Yellowstone River in southern Montana. The surrounding terrain is hilly and covered with grasses, low-lying deciduous bushes, and a scattering of lodgepole pine and Douglas fir. Mine locations range in elevation from 5000 ft to 6700 ft and reside within the southern end of the Bridger Range and are bordered on the west by the Gallatin Range (Calvert 1912).

The Livingston and Trail Creek coal fields occur in a series of sandy beds overlying Colorado shale and covered by tuffaceous rocks (volcanic debris) and Eagle Sandstone. The beds vary in thickness from 4 to 12 ft and the coal itself is largely semi-bituminous lump coal with an average heating value of 10,950 Btu's and an ash content of 8.5 percent. The coal beds are separated into benches by clay and bone partings. The sedimentary rocks of the area contain strata of Cambrian quartzite lying upon Archean granite constituting a total thickness of over 12,000 ft dating from no earlier than the Upper Cretaceous period. According to geologist Albert E. Roberts, the topography is characterized by "northwest-trending ridges of indurated Paleozoic rocks and contiguous valleys in the easily eroded Cretaceous rocks." Extensive folding and faulting has occurred within these coal fields. The first description of this coal field occurred in 1872 during the Geological Survey of the Territories by Hayden. Hayden's survey was followed by one conducted by George Eldridge in 1886, Walter Weed in 1891, L.S. Storrs in 1902, and W. R. Calvert in 1910, all of whom made reference to coal reserves in the Livingston field (Calvert 1966; Storrs 1902; Roberts 1966; Bateman 1966).

Topography has a major influence on the local climate. The high mountainous valleys are both colder and wetter than the broad valleys where the towns of Bozeman and Livingston are situated. Snow depths in the Trail Creek valley average seven feet and temperatures range between -30° and 40° F. in the winter to between 32° and 95° F. during the summer. Vegetation varies widely with elevation and soils, ranging from alder, aspen, and willow in the creek bottoms to Douglas hawthorne, sagebrush, lodgepole pine, and Douglas fir on the hillsides above. The climate has a dramatic impact on the natural vegetation and human habitation and industry.

## HISTORIC BACKGROUND

The Livingston Coal Field, which is made up of the Trail Creek, Timberline and the Cokedale Districts, first gained recognition as a potential source of fuel during the Hayden Survey in 1867. In 1881 the Northern Transcontinental Survey, led by George Eldridge, conducted a more thorough examination of the area for its potential to yield coal to power the nation's new railroads. Within several years two of the area's most productive and long-lived underground coal mines began operation: William H. Williams' Cokedale mine and Daniel Maxey's mine just off Trail Creek (Roberts 1966).

The coming of the Northern Pacific Railroad to Bozeman and Livingston in the early 1880s resulted in coal mining in the narrow mountain valleys south of Bozeman Pass to provide fuel for the railroad and for household use in these two growing communities. For the next 40 years relatively small numbers of miners extracted coal from the underground works of more than a dozen small mines in the area between the Yellowstone River and Trail Creek. The earliest mining activity occurred at two separate locations--Cokedale and Maxey--beginning in 1881. While the mines within the Livingston field produced substantial amounts of coal during this period, production in Cascade County [the mines at Belt, Sand Coulee and Stockett] and those in Carbon County [the mines at Bear Creek, Red Lodge and Washoe] quickly outdistanced those of the northern Park County mining district (Roberts 1966; Chadwick 1973).

Williams H. Williams, a Welshman with mining experience in Colorado, first explored Miner Creek during the late summer of 1879 looking for coal deposits. After experimenting with coke production Williams began production in 1883 in a series of underground coal mines located approximately eight miles west of Livingston above Miner Creek. These Cokedale mines, developed concurrently with the early Timberline mines in Gallatin County, ranked as one of the highest producing mines in the Livingston Coal Field by the mid-1890s. By 1889 miners at the Cokedale No. 1 mines extracted enough sub-bituminous coal to fire 78 coke ovens, producing 100 tons of coke per day; however, the district's high productivity proved short-lived. By 1906 the coal seams at Cokedale played out, the drifts filled with water and the hoisting engines remained silent (Roberts 1966).

Although William H. Williams deserves credit for developing the first coal mine along Miner Creek and building the first coke oven in 1882 just east of the future townsite of Cokedale, it would be some eight years later before the area gained a reputation as an important coal district. In 1888 Helena entrepreneur Samuel Hauser consolidated the mines at Cokedale into the Livingston Coal & Coke Company (L.C.& C.Co.) making the capital investment necessary to supply the men and machinery for large-scale development. Mine engineers for the L.C. & C. Co. initiated the sinking of an inclined shaft some 300 ft west of the original portal. Within eight years the shaft reached a depth fo 1200 ft, the workings comprised of five levels each some 200 to 300 ft apart. During its first year of operation under the direction of the L.C. & C. Co. the Cokedale No. 1 mines produced 49,400 tons of coal, a remarkable achievement for its first year under new management (Roberts 1966; Montana Mine Inspector 1889).

The great success of the L.C. & C. Co. can be attributed, in part, to the high grade of coal found at Cokedale and the technologies employed to process and transport it. In 1889 the Montana mine inspector described the coal taken from the Cokedale No. 1 mines as "chippy" coal, distinguished when coked by its "bright metallic lustre and sharp ring." Chippy coal, while containing a relatively high heat value (10,950 B.t.u.'s), also required washing to remove large quantities of ash. In 1889 the L.C. & C. Co. constructed a wash house, connected with the mine mouth via a quarter mile coal car tram in 1898. The company also erected a narrow gauge rail track to transport the coal from the washer to the top of the extensive row of coke ovens extending east from the mines. During 45 days in 1887 L.C. & C. Co. constructed a three and a hal mile rail spur from the Northern Pacific mainline to the Cokedale coke ovens at a cost of $55,000. This Northern Pacific spur served a total of 130 coke ovens by the beginning of the twentieth century. The finished coke, derived from 72 hours of firing, was then shipped by rail to Butte, Anaconda, East Helena and Great Falls for use in the smelters (Whithorn 1976).

In 1893 the 250 miners working at the Cokedale mines produced 58,000 tons of coke, the largest amount ever shipped during the mines' 30 years of operation. Increasing activity underground prompted the establishment of a community above ground which became larger than Livingston. By 1891 the town of Cokedale numbered 500 residents and included a general store, saloon, hotel, boarding houses, school, post office and 50 cottages erected by the mining company. The boom in mining and town growth proved short-lived, however. A fire in 1895 in the boiler house destroyed the air compressor and hoisting engine. The fire, followed by the failure of Hauser's First National Bank of Helena in 1896, closed the No. 1 mines that same year. With the mine closure, pumps were removed, allowing the underground workings to flood without regard for future development (Whithorn 1976; Roberts 1966; Montana Mine Inspector Report 1892; Finch 1985).

A scaled-down mining operation resumed in 1898 when a Spokane entrepreneur Oscar James purchased the Cokedale mines from the L.C. & C. Co. creditors. Although James' crews began shipping raw coal again, the coke operation did not resume. Finally in 1902 the Anaconda Copper Mining Company (A.C.M.) assumed ownership of the operation and put men to work repairing the washer, preparing the coke ovens for firing, and opening the sixth level located 300 ft below the fifth. By 1904 A.C.M.'s 75 employees fired 100 coke ovens to produce 7000 tons of coke. Like other coal mines linked to Anaconda smelting, Cokedale production lagged between 1903 and 1905 because of the war waged between mine owners in Butte over copper claims. But with a cessation of hostilities in Butte in 1905 and A.C.M.'s subsequent dominion over the Butte hill, the No. 1 mines regained its status as a leading area coke producer (Roberts 1966; Rowe 1905; Whithorn 1976).

Within four short years A.C.M. abandoned the No.1 mines, ending a brief but productive era of mining in the Cokedale district. On April 15, 1906 A.C.M. closed the No. 1 mine, citing the diminishing coal deposits as a cause. Although the Cokedale coal beds extended for some three miles, prospects both east and west of the No. 1 mines revealed increasingly thin and impure coal beds. The town of Cokedale, already shaken by the major fire the previous July, succumbed with A.C.M.'s departure, even though efforts were in progress to rebuild the town. By 1908 the Northern Pacific rail spur had been torn up and a U.S.G.S. geologist reported an end to all mining activity along Miner Creek (Calvert 1912; Whithorn 1976).

The Cokedale No. 2 mines, located west of the Cokedale No. 1 mines, were developed by Livingston Coal and Coke Company (L.C.& C. Co.) concurrently with its namesake to the east, primarily to provide ventilation and emergency exits for the No. 1 mines. Exploitation of coal reserves at the No. 2 did not occur until Oscar James, a Spokane entrepreneur, assumed control of the Cokedale operations after 1898. By 1900 the James crew had removed all the readily accessible coal, including the pillars, achieving a daily coke output of 20 tons. James shipped all the coke from the No. 2 mines to the Spokane Gas & Fuel Company for use in the manufacture of gas (Roberts 1966).

Although mining activities at the No. 2 mines lasted only a short time it was part of the much larger Cokedale District which included the smaller operations at the Dilulo, Buckskin and Number 30. At the head of Miner Creek sits the Dilulo mines, operated for a brief period between 1933 and 1937 by Mike Dilulo. Although the coal was of high quality, production was limited to sale for domestic use. Over the divide into the Timberline drainage the Northern Pacific Coal Company developed a small underground coal mine in Section 30, hence the name of this operation at the No. 30 Mine. The date of the initial operation is unknown but in 1932 Frank Woodland and Ray Ross reopened the workings, sinking several new shafts. The partners abandoned the No. 30 within two years after encountering a thick but very dirty coal seam. In 1890 Frances Wicks patented 120 acres of coal land near the head of Eldridge Creek, approximately three miles west of Cokedale. This rather small operation was known as the Buckskin mine. Fifteen miles to the northwest of the Cokedale District was the Trail Creek District, an equally important component of the Livingston coal field (Roberts 1966).

In 1882 Daniel Maxey, an early Bozeman cattle trader, shipped his first load of coal from a horizontal drift driven along the strike of the Cokedale bed, immediately west of Trail Creek in the foothills of the Gallatin Range. The Maxey family continued to operate a series of coal mines in this area periodically for the next 40 years. Within several years of his initial discovery, Maxey's crew shipped almost 400 tons of coal for domestic use to nearby Bozeman. Problems with coking and underground faults limited production, leading to a rather lengthy period of inactivity. Finally in 1903 Maxey's four sons resumed production in the family mines along Trail Creek. By 1910 the Maxey brothers employed 47 men, who extracted over 32,000 tons of coal, but by 1915 problems underground again idled the miners. For the next 15 years the Maxey mines remained idle. The final chapter in the story of the Maxey mines occurred in 1931 with the removal of the last rich coal vein in a previously worked drift above Trail Creek. But during the 40 year life of the Maxey mines over 200,000 tons of high quality coal were removed and a community of miner's houses grew up around the mines along Trail Creek (Roberts 1966; Whithorn 1976).

North of the Maxey mines were several smaller operations known as the Kountz and the Morrison. In the late 1890s J. J. Kountz, a Bozeman banker, and George Cox of the Park County Coal Company drove an inclined shaft several miles north of the Maxey mines and just east of Meadow Creek. By 1906 production topped 5500 tons as the mine reaching a depth of 600 ft and the drifts extended over 700 ft. The operation included a steam-powered hoist, tipple for loading and fans for ventilating the underground. In 1907 J. W. Anderson and T. J. Evans acquired the mine but a underground fire in 1910 closed the

Kountz mine forever. The largest number of men ever employed in the Kountz was 45 in 1907. Located just one-half mile north, along Meadow Creek, was another small operation up Morrison Gulch. The Northern Pacific Railroad patented this coal land in 1893 but the historical record provides no information about the operation of this mine (Roberts 1966; Whithorn 1976; BLM Patent Records).

The dozen mines located within the Cokedale and Trail Creek Districts of the Livingston coal field represented an important episode in the early history of underground coal mining in Montana. The peak years of production, 1890 to 1910, can be linked to the arrival of the railroad, an increased domestic need for fuel tied to a dramatic increase in population, and the growth of a smelting industry in need of coke for fuel. Mining in these two districts took place concurrently with the activities at Aldridge and Electric in the southern end of Park County and those to the north in Gallatin County centered at Chestnut and Timberline. In all four instances the demise of the fledgling industry was tied to a shrinking demand for domestic coal and industrial coke and an exhaustion of easily recoverable, high quality coal. After 1910 underground coal mining shifted east to more extensive and easily recoverable reserves in Carbon County (Red Lodge) and Yellowstone County (Roundup) and to open-pit mining at Colstrip after 1924.

## IMPACT OF RECLAMATION ON CULTURAL RESOURCES

At two of the ten abandoned mine sites the reclamation work recommended would have a negative impact on existing cultural resources. In those two instances we have recommended alterations to the plan or steps to be taken to mitigate damage that might occur if the current plan were adopted. For each of the ten sites we have included a brief statement of the proposed reclamation plan (as cited in engineering report by Spectrum Engineering of Billings, Montana) and our recomendations as to its implementation.

Cokedale 1: "Strip the topsoil from the subsidence and adit depressions and stockpile adjacent to the depressions. Seal one open adit (SP 3). Dispose of all scattered debris littering the site. Remove waste dump two and use as backfill material for two subsidence depressions and one adit depression. Additional backfill can be obtained from waste dump one as needed. Regrade the remainder of waste dump one and a portion of waste dump five (see topographic map) to blend with surrounding topography. Neutralize all areas containing waste dump material (with the exception of waste dump five). Bury all areas containing waste dump material with 0.5' of topsoil from the stockpiles and borrow areas as necessary. Revegetate all disturbed areas. Additional work description details can be found in the special provisions."

The proposed reclamation plan will not have a negative impact on existing cultural resource.

Cokedale 2: "Strip topsoil from all subsidence pits and stockpile adjacent to the pits. Dispose of all scattered debris littering the site. Remove the coal slack pile at the north upper site. Seal one open adit, backfill two adit depressions and six subsidence depressions with coal slack material at the north upper site. Depressions SP 7, SP 8, and SP 10 will be backfilled with material from coal slack piles four and five. Coal slack piles two and three will be buried in place. All coal slack areas will be neutralized and buried with 0.5' of topsoil from the stockpile area and from the borrow areas as necessary. All disturbed areas will be revegetated. Additional work descriptions can be found in the special provisions."

"Strip and stockpile the topsoil from the adit depressions. Permanently seal one adit opening (SP 2). Demolish and dispose of the retaining structure adjacent to coal slack pile one and dispose of the resulting debris and scattered debris littering the site. Nonbiodegradable debris can be buried in the bottom of the adit depressions. Backfill adit depression (SP 2) with material from coal slack pile two. Partially backfill adit depression (SP 1) with material from coal slack pile one and regrade the depression to blend with surrounding topography. Neutralize all coal slack areas. Retopsoil the neutralized coal slack areas with 0.5' of topsoil from the stockpile and borrow areas as necessary. Revegetate all disturbed areas. Additional work description details can be found in the special provisions."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

Buckskin: "Strip and stockpile topsoil from areas to be covered by waste pile material and/or coal slack. Topsoil removed from the adit depressions, trench and subsidence pit may be stockpiled adjacent to those areas. Dispose of all scattered debris littering the site. Backfill and regrade one closed adit depression, one subsidence pit and one trench with coal slack material. Regrade the remaining material in coal slack piles one and two in place. Neutralize all coal slack areas. Place topsoil from the stockpiles onto all neutralized coal slack areas. Revegetate all disturbed areas. Additional work description details can be found in the special provisions."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

Number 30 Lower Site Work Description: "Salvage and stockpile all topsoil from those areas where the coal slack is to be placed as fill material. Place any nonbiodegradable debris in the bottom of the adit. Remove other scattered debris. Backfill the collapsed adit depression with coal slack material on site. Haul the excess coal slack in the dumps on site to the Coulston site subsidence pits for burial.* Neutralize the coal slack areas. Direct place borrow material over the coal slack areas to a depth of 0.5 ft. Revegetate all disturbed areas. Additional work description detail can be found in the special provisions."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

Number 30 Upper Site Work Description: "Salvage and stockpile all topsoil from those areas where the coal slack is to be placed as fill material. Place any nonbiodegradable debris in the bottom of the adit. Remove other scattered debris. Backfill the collapsed adit depression with coal slack material on site. Neutralize the coal slack areas. Borrow material adjacent to the adit to cover the coal slack and provide a uniform slope. Direct place borrow material over the coal slack areas to a depth of 0.5 ft. Revegetate all disturbed areas. Additional work description detail can be found in the special provisions."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

Dilulo East: "Strip and stockpile the topsoil in the area south of and adjacent to the coal slack pile, the adit depression and the subsidence depression. Topsoil removed from the depressions may be stockpiled next to those features. Bury all nonbiodegradable debris in the bottom of the adit depression and dispose of all scattered debris littering the site. Backfill the adit and subsidence depressions with a material from the coal slack pile. Regrade the remainder of the coal slack pile downhill onto the area where the topsoil has been stripped. Neutralize all coal slack areas. Bury all neutralized coal slack areas with 0.5 ft of top soil. Revegetate all disturbed areas. Additional work description details can be found in the special provisions."

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*The Coulston subsidence pits are located approximately 4000 ft by trail to the northwest of the Lower No. 30 site.

Dilulo West 1 and 2: "Demolish the shack near the adit depression and the shack along the access trail at the West 1 site in addition to the coal loadout chute at the West 2 site. Dispose of the resulting debris and all debris littering the sites. Remove sufficient portions of the two large coal slack piles to blend with the surrounding topography. This coal slack will be buried in the slack disposal area located 2200 ft ± west of the sites (see Dilulo West sites sheet 1). All coal slack areas will be neutralized and covered with 0.5' of topsoil from the coal slack disposal area. All disturbed areas will be revegetated. Additional work description details can be found in the special provisions."

The removal of a log cabin (F-8) at West 1 site, as recommended in the reclamation plan, would have a negative impact on future interpretation of this site. We recommend proceeding with the removal of nearby coal slack without disturbing this feature of the site. The removal of the wooden loadout chute is unavoidable if the adjacent coal slack is to be removed and its integrity has already been compromised over time. Many of the wooden structures found at this site have collapsed and have deteriorated over time, but when removal can be avoided it should be.

Maxey North Lower: "Strip and stockpile the topsoil from the areas to be covered by coal slack and/or waste pile material and stockpile. Remove the coal slack from the designated areas adjacent to Trail Creek as shown on the topographic map and bury in the disposal area. Rebuild the floodplain with material from the waste piles using 2:1 bank slopes adjacent to the creek and revegetate bank slopes with sod. Backfill one adit depression (SP 1) with waste pile material. Demolish two stone building remains and bury the resulting nonbiodegradable debris on site. Dispose of all other debris. Neutralize all coal slack areas. Regrade the remainder of the waste piles into the adjacent area to blend with existing topography. Place topsoil from the stockpile area onto the areas covered by coal slack and/or waste pile material as necessary. Revegetate all disturbed areas. Additional work description details can be found in the special provisions."

Removal of coal slack along the creek which caps the prehistoric Maxey Corral site (24PA798), may damage this potentially significant site. We recommend testing the site to determine its significance and better define its boundaries prior to removal of the slack.

Maxey North Upper. "Strip and stockpile topsoil from areas to be covered by waste pile material and/or coal slack. Topsoil removed from the subsidence pits may be stockpiled adjacent to the pits. Place all nonbiodegradable debris at the bottom of the subsidence depressions and dispose of all scattered debris littering the site. Backfill and regrade seven subsidence depressions and one closed adit depression with material from waste pile one. Regrade the coal slack pile into the slack disposal area. Regrade the remainder of waste pile one in place to blend with surrounding topography. Neutralize all coal slack areas. Bury all neutralized coal slack areas with 0.5' of topsoil from the topsoil stockpiles. Fertilize, seed and mulch all disturbed areas. Additional work description details can be found in the special provisions."

The removal of the ruins of two stone buildings, as recommended in the reclamation plan would have a negative impact on existing cultural resources at the site. One of the buildings, F-6, was the boiler house for the Maxey mine, a significant element of the operation and an important landmark for future interpretation of this turn-of-the-century underground mining operation. It is recommended to avoid demolition of these two structures during efforts to reclaim this historic mining site. Most of the other log and wooden structures within the Lower site are found outside the immediate area of reclamation. These structures should be avoided when possible in completion of the reclamation work. Recommended reclamation work at the Upper site will not have a negative impact on existing cultural resources.

Maxey South: "Strip topsoil from areas to be covered by waste pile material and stockpile. Topsoil removed from the subsidence pits may be stockpiled adjacent to the pits. Bury all nonbiodegradable debris within the subsidence depressions and dispose of all scattered debris littering the site. Backfill and regrade six (6) subsidence depressions and two closed adit depressions with material from waste piles 1, 2, and 3. Regrade the excess material from waste pile one in place to blend with the surrounding topography. Backfill the excavated pit with material from topography. Spread topsoil from stockpiles as necessary. Revegetate all disturbed areas. Additional work description details can be found in the special provisions. There is no evidence of coal slack at this site."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

Maxey West 1: "Strip and stockpile the topsoil from the adit depression. Bury all nonbiodegradable debris in the bottom of the adit depression and dispose of all scattered debris littering the site. Backfill the adit depression with material from the coal slack pile. Neutralize all coal slack areas. Topsoil all neutralized coal slack areas. Additional topsoil may be borrowed from the Maxey North Lower Site as needed. Revegetate all disturbed areas. Additional work description details can be found in the special provisions."

Maxey North Lower borrow site is located 4200± to the north.

Since the proposed reclamation work will obliterate all evidence of the historic mining operation on this site, and because mining at this site was an integral part of the Maxey brothers operation between 1900 and 1931 and specifics regarding this part of the operation are unavailable in the historical literature, we recommend more thorough mapping of the site (with the assistance of local informants) prior to reclamation work.

Morrison: "Fill the two subsidence pits (SP 1 and SP 2) and the two depressions associated with the collapse of two adits (SP 3 and SP 5) with coal slack material from the lower dump. Salvage and stockpile the topsoil directly north and adjacent to the lower dump (see map). Spread the lower dump onto this area as necessary to blend with existing topography. Neutralize all coal slack areas prior to burial. Remove topsoil from borrow area to 1 ft depth and cover all designated areas with 0.5 ft of top soil. Demolish the building and dispose of all debris. Fertilize, seed and mulch all disturbed areas. Additional work description details can be found in the special provisions."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

Kountz: "Salvage and stockpile all topsoil from those areas where the coal slack is to be placed as fill material. Backfill the two larger subsidence pits (SP 3 and SP 4) and the closed, collapsed adit (SP 5) with material from the main dump. Move the farm machinery, junk auto bodies and parts out of the work area. Regrade the main dump to approximately 4H:IV slopes to blend with existing natural topography. Neutralize all coal slack areas including the four small areas along the hillside near the top of the ridge, the backfilled subsidence pits, and the regraded main dump prior to burial. Use stockpiled topsoil and topsoil removed to a depth of 1.0 ft from the borrow areas to cover all designated areas to a depth of 0.5 ft, fertilize, seed, and mulch these areas and all other disturbed areas."

The proposed reclamation plan will not have a negative impact on existing cultural resources.

## HISTORIES OF THE STUDY GROUP MINES

The ten coal mine sites examined in this report are typical of other late nineteenth, early twentieth century underground commercial coal mines that operated in Gallatin, Cascade and Yellowstone Counties. During the height of production, 1881 to 1910, the ten coal mining sites in northern Park County produced sub-bituminous coal for use by the railroads, the smelters in Butte, Anaconda and East Helena, and for domestic use in nearby Livingston and Bozeman using extraction and processing techniques utilized in other Montana underground coal mining districts. By 1910 the easily recoverable and richest coal seams had been exploited at these sites, causing a shift in mining activity to more accessible coal beds to the east. Technological innovations in smelting and new sources of energy (natural gas and hydroelectric power) diminished the demand for coking coal after 1910. A brief resurgence of activity occurred in the Cokedale and Trail Creek Districts in the 1930s due to local demand for domestic fuel, but renewed economic activity during the World War II shifted coal mining to Red Lodge, Roundup and open-pit operations at Colstrip.

Of the three prehistoric sites recorded on this project two are within the Maxey North Mine site area and the third, the Old Trail site (24PA797) is on the road leading to the Maxey South Mine. These three sites are briefly described in this section.

## Cokedale Mine 2 (24PA781)

The Cokedale No. 2 mines, located west of the Cokedale No. 1 mines, were developed by Livingston Coal and Coke Company (L.C.&C.CO.) concurrently with its namesake to the east primarily to provide ventilation and emergency exits for their original mines. Exploitation of coal reserves at the No. 2 did not occur until Oscar James, a Spokane entrepreneur, assumed control of the Cokedale operations after 1898. James directed the sinking of a 200-ft inclined shaft known as the James Entry, with levels at both 80 and 280 ft. These levels extended eastward to intersect the upraises of the No. 1 mines. Here James' men encountered numerous faults which ultimately prompted closure of these drifts. Over a period of a year the James crew removed all the readily accessible coal, including the pillars, achieving a daily coke output of 20 tons. James shipped all the coke from the No. 2 mines to the Spokane Gas & Fuel Company for use in the manufacture of gas (Roberts 1966).

Although mining activities at the No. 2 mines lasted only several years it is still recognized as part of the much larger and more productive Cokedale District which shipped processed coke to smelting operations in Butte, Anaconda, East Helena and Great Falls for almost 20 years just prior to and after the turn of the century.

## Cokedale Mine 1 (24PA782)

In 1883 William H. Williams began production in a series of underground coal mines lcoated approximately eight miles west of Livingston above Miner Creek. The Cokedale mines, developed concurrently with the early Timberline mines in Gallatin County, ranked as one of the highest producing mines in the Livingston Coal Field by the mid-1890s. By 1889 miners at the Cokedale No. 1 mines extracted enough sub-bituminous coal to fire 78 coke ovens, producing 100 tons of coke per day; however, the district's high productivity proved short-lived. By 1906 the coal seams at Cokedale played out, the drifts filled with water and the hoisting engines remained silent (Roberts 1966).

Although William H. Williams deserves credit for developing the first coal mine along Miner Creek and building the first coke oven in 1882 just east of the future townsite of Cokedale, it would be some eight years later before the area gained a reputation as a major coal district. Several owners followed Williams, V. E. Tull in 1885 and Helena entrepreneur Samuel Hauser in 1888. Hauser consolidated the mines at east Cokedale into the Livingston Coal & Coke Company (L.C.& C.Co.), making the capital investment necessary to supply the men and machinery for large-scale development. When Hauser took charge previous owners had already directed the opening of a horizontal drift 700 ft long. Mine engineers for the L.C.&C.Co. initiated the sinking of an inclined shaft some 300 ft west of the original portal. Within eight years the shaft reached a depth of 1200 ft and the workings were comprised of five levels each some 200 to 300 ft apart. The miners advanced these drifts along the western orientation of the coal bed for as much as 5500 ft on one level. During its first year of operation under the direction of the L.C. & C.Co. the Cokedale No. 1 mines produced 49,400 tons of coal, a remarkable achievement under new management (Roberts 1966; Montana Mine Inspector 1889).

The great success of the L.C. & C.Co. can be attributed to in part to the high grade of coal found at Cokedale and also to the technologies employed to process and transport it. In 1889 the Montana mine inspector described the coal taken from the Cokedale No. 1 mines as "chippy" coal, distinguished when coked by its "bright metallic lustre and sharp ring." Chippy coal, although containing a relatively high heat value (10,950 B.t.u.'s), also required washing to remove large quantities of ash. In 1889 the L.C. & C.Co. constructed a wash house, connected with the mine mouth via a 1/4 mile coal car tram in 1898. The company also erected a narrow gauge rail track to transport the coal from the washer to the top of the extensive row of coke ovens extending east of the mines. As early as 1887 L.C. & C. Co. constructed a three and one-half mile rail spur from the Northern Pacific mainline to the Cokedale coke ovens over a period of a month and one-half at a cost of $55,000. This Northern Pacific spur served a total of 130 coke ovens by the beginning of the twentieth century. The earliest of these five-ton ovens were constructed from Ohio firebrick but by 1887 builders employed a local fire clay for the Cokedale ovens. The finished product, derived from 72 hours of firing, was then shipped by rail to Butte, Anaconda, East Helena, and Great Falls for use in smelters there (Whithorn 1976).

By 1892 L.C. & C. Co. confined its work in its No. 1 mines to the three drifts west of the shaft. In 1893 the 250 miners working at these Cokedale mines, under direction of Superintendent George T. Wickes, produced 58,000 tons of coke, the largest amount ever shipped during the mines' 30 years of operation. Working in the main drift at the 600 ft level the miners encountered a 5 ft thick seam of coal which was removed using a 24 x 40 in. double cylinder steam engine. Frenetic activity underground prompted the establishment of a community south of the coke ovens and mines which was larger than Livingston. By 1891 the town of Cokedale numbered 500 residents and included a general store, saloon, hotel, boarding houses, school, post office and 50 cottages erected by the mining company. The boom in mining and town growth proved short-lived, however. A fire on July 30, 1895 in the boiler house destroyed the air compressor and hoisting engine. This was followed by the failure of Hauser's First National Bank in Helena in 1896 which closed the No. 1 mines that same year. With the mine closure pumps were removed, allowing the underground workings to flood without regard for future development (Whithorn 1976; Roberts 1966; Montana Mine Inspector Report 1892; Finch 1985).

A scaled-down mining operation resumed in 1898 when Spokane entrepreneur Oscar James puchased the Cokedale mines from the L.C.& C.Co. creditors. James directed the pumping of the original inclined shaft, allowing miners to remove the pillars of coal left by the initial operators in the upper levels. Although James' crews began shipping raw coal again, the coke operation did not resume. Finally in 1902 the Anaconda Copper Mining Company (A.C.M.) assumed ownership of the operation and pursued rehabilitation of the operation. Before reopening the No. 1 mines in the summer of 1903 A.C.M. put men to work repairing the washer, preparing the coke ovens for firing, and opening the 6th level located 300 ft below the 5th. By 1904 A.C.M.'s 75 employees used 100 operating ovens to produce 7000 tons of coke. Like other coal mines linked to Anaconda smelting Cokedale production suffered between 1903 and 1905 because of the war waged between mine owners in Butte over copper claims. With the cessation of hostilities in Butte in 1905 and A.C.M.'s subsequent dominion over the Butte hill, the No. 1 mines regained its status as a leading coke producer (Roberts 1966; Rowe 1905; Whithorn 1976).

Without four short years A.C.M. abandoned No. 1 mines, ending a brief but productive era of mining in the Cokedale district. On April 15, 1906 A.C.M. closed the No. 1 mine, citing diminishing coal deposits as a cause. Although the Cokedale coal beds extended for some three miles, prospects both east and west of the No. 1 mines revealed increasingly thin and impure coal beds. The town of Cokedale, already weakened by a major fire the previous July, succumbed with A.C.M.'s departure even though efforts were in progress to rebuild the town. By 1908 the Northern Pacific rail spur had been torn up and a U.S.G.S. geologist reported an end to all mining activity along Miner Creek (Calvert 1912; Whithorn 1976).

### Buckskin Mine (24PA783)

The Buckskin mine represented the western most edge of the Cokedale District. The Buckskin, developed by Joseph McKeown in 1888, produced only small amounts of coal for domestic use in Livingston. In 1889 McKeown sold the Buckskin to the Livingston Coal and Coke Company, the owners and developers of the Cokedale mines and cokeovens between 1888 and 1898 (Roberts 1966).

### Number 30 Mine (Upper and Lower Sites) (24PA784)

In 1885 Lewis Hyer acquired a patent on 120 acres of land in the area of the No. 30 Mine site (Bureau of Mines Patent #195). Named for its legal location in Section 30, this mine was first worked by the Northern Pacific Coal Company sometime between 1880 and 1900 (the exact date of its initial operaton is unknown). During the mine's initial operation, miners tunneled a drift some 500 ft southeast along the strike of the Cokedale coal bed. The No. 30 operated during the same era as the other Timberline mines operated by the Northern Pacific Railroad producing coal for the company's steam locomotives (Roberts 1966).

Frank Woodland and Ray Ross reopened the No. 30 in 1932 by sinking three shafts along the line of the original drift. The new mine owners directed the driving of a second drift 25 ft below the original. Two years later the No. 30 closed for the final time, but not before the miners advanced the new drift 600 ft. Although the coal bed was thick the product's composition required washing prior to use, an added cost not justified in this case (Roberts 1966).

### Dilulo East and West (24PA785)

The land on which the site is located was patented in May of 1890 by Elizabeth B. Hoffman, #707 for 120 acres above Miner Creek and that same year the Northern Pacific Railroad received Patent #8 on 622 acres of land just west of Hoffman (BLM Government Land Office Records; Roberts 1966). In 1933 Mike Dilulo opened a horizontal drift on the Cokedale bed above the upper end of Miner Creek. Dilulo and his crew tunneled 40 ft north along the strike of the bed using a room and pillar system. The Dilulo mines produced small quantities of coking quality coal. Operations shut down in 1937.

### Maxey Mine North (Upper and Lower) (24PA786)

Daniel Maxey began his career in coal mining with the development of a horizontal drift immediately west of Trail Creek in 1881 to supply the residents of nearby Bozeman with domestic fuel. Maxey was not a miner by trade, in fact he first appeared in the Gallatin Valley in August of 1866 selling beef and firewood to the troops garrisoned at Fort Ellis. Maxey's first mining enterprise proved a reasonable success with the production of 236 tons of coal in 1883 and 394 tons in 1884. In 1884 the Utah and Northern Railroad purchased most of Maxey's coal for use in the smelters of Butte, but an initial failure in coking experiments discouraged further development of the Maxey mines (Whithorn 1976; Roberts 1966).

The mines remained idle until 1889 when Maxey opened the No. 1, 2 and 3 drifts utilizing an inclined shaft. Discouraged by development problems, Maxey sold his operation and 600 acres of coal lands in 1895 to A. B. Cook who operated the mines as the Trail Creek Coal Company. While driving a drift southwest from the No. 1 adit Cook's miners encountered numerous faults, causing increased discouragement and eventual abandonment of the operation. Within five years the Trail Creek coal mines again resided with Daniel Maxey and his four sons (Roberts 1966).

In 1903 the Trail Creek mines -- the Maxey, Byam, Cook and Chimney Rock -- began producing again, under the direction of Maxey's four sons. Between 1903 and 1910 the Maxey Brothers -- John, William, David and George -- operated the most productive underground coal mines within the Trail Creek District, including two new mines. In 1903, miners working for the Maxey brothers, broke through the fault that had previously halted the advance to the south. In 1905 David and George Maxey pumped out and retimbered the old Byam mine, dating from 1884, and by 1906 began shipping coal from these old works. The opening of two new entries, the remodeling of the tipple and the installation of a new revolving screen prompted improved production at the Chimney Rock mine in 1908. Twenty-seven pick miners, working 211 days, extracted over 15,000 tons of coal. The Maxey brothers opened the No. 2 entry in 1908 and by 1910 they had connected this working to the No. 3 resulting in an increase in production from 150 to 200 tons of coal per day (Roberts 1966; Rowe 1909; Calvert 1912; Whithorn 1976).

Production increased markedly over the period, from 500 tons in 1906 to over 32,000 tons in 1910. At the height of production the Maxey brothers boasted a work force of 47 men. Miners extracted high-grade coal from the Maxey mines until 1916, when they struck a fault and lost the seam. The miners looked unsuccessfully for the seam for the next two years, but 10 years would pass before full-scale mining would resume in the Maxey mines. Finally in the late 1920s John, William and George Maxey reopened the old works, mining out the old pillars and striking a rich coal seam in 1930. However, this bonanza proved shortlived and by 1931 the Maxeys' abandoned their mines along Trail Creek for the last time, but not before removing over 200,000 tons of high quality domestic grade coal over the 40 years of activity (Roberts 1966; Whithorn 1976).

The Maxey family made an important, long-term contribution to the mining of coal in the Trail Creek District and to public affairs in Gallatin and Park Counties. Before his death in 1910, Daniel Maxey served on both the Bozeman City Council and the Park County Council of Commissioners. Three of Daniel's sons -- John, William and George -- took up residence in Bozeman in 1918 during their initial abandonment of the family mines. In 1919 David Maxey left Trail Creek for Livingston. During the mining boom, the town of Maxey claimed 37 houses and a boarding house for miners. Today, only Daniel Maxey's house remains (Whithorn 1976).

### Maxey Mine South (24PA787)

In 1898 William Maxey, son of a western Montana pioneer Daniel Maxey, obtained a patent on 160 acres of coal land immediately above and to the west of Trail Creek. The Maxey South property was situated approximately one mile south of a major underground coal mining complex operated by Daniel Maxey between 1903 and 1931 (Roberts 1966; BLM Records, Homestead Entry Patent #1292).

Although associated with the Maxey family through the homestead entry patent, the mine is not specifically identified in any of the other historical information about the Trail Creek District.

### Morrison Mine (24PA788)

Public land records show that the Northern Pacific Railroad patented 480 acres in the vicinity of the Morrison Gulch Mine in November 1893. No additional information on the operation of this historic mine were located (BLM Government Land Office Records). Mining probably occurred during the first decade of the twentieth century and, at the latest, would have ended by 1937 when all mining ended in the district.

### Kountz Mine (24PA789)

In the late 1880s J.J. Kountz, a Bozeman banker, and John Cox of the Park County Coal Company, drove an inclined shaft initiating work at the Kountz Mine, a claim patented by Jerome B. Waterman in 1897 (Patent No. 63). By 1905, a work force of 15 men extracted 3000 tons of coal and two years later reached a depth of 700 ft, under the direction of new owners J. W. Anderson and T. J. Evans. Under their direction the miners drove a drift 750 ft to the northwest and 550 ft southeast (Roberts 1966; BLM Mine Lease and Patent Records).

The Kountz mine site, located approximately one mile southeast of the Hoffman mine, included a steam hoist, wooden tipple, and exhaust fans to ventilate the underground. Between 1903 and 1910 miners removed coal from two benches, each overlaid with one foot of sandstone, on four different levels. By 1907 the work force increased to 45 men who extracted over 8300 tons of coal. The next year Kountz miners removed 5700 tons, most of which the company shipped to Bozeman for domestic use (Calvert 1912; Inspector of MInes 1905-1906).

An underground mine fire in 1910 halted production temporarily, but the Kountz never reopened, due in part to a shrinking demand and the disappearance of easily accessible coal beds. During the mine's most productive years, the Trail Creek Trading Company, a partnership of Frank Buttrey, George Dier, and John Ross, sold dry goods and supplies to the miners from a location just below the mine along the Trail Creek road (Calvert 1912; Whithorn 1976).

### Maxey Mine West (24PA793)

In 1881, Daniel Maxey, an early Bozeman trader, opened the first in a series of underground coal mines in the Trail Creek District that operated until the early 1930s, supplying coal for domestic uses in nearby Bozeman. Early day operations produced quantities that never exceeded 500 tons, but between 1903 and 1910 production increased dramatically to over 32,000 tons. From this time until 1931 Maxey's four sons directed the operation of the numerous small mines immediately west of Trail Creek (Roberts 1966).

Although the historical literature provides no specific reference to the Maxey West, there is mention of a mine operated by Maxey's just below Chimney Rock, a location that corresponds to the remains of a historic underground coal mine located approximately one-half mile west of the Maxey Mines. The literature notes a total of 27 pick miners working at this location in 1908 and the existence of several new houses in the vicinity. Another source mentions another highly productive mine below Chimney Rock, operated by Anderson and Evans, where 33 miners produced over 21,000 tons of coal in 1909 (Rowe 1909).

### Maxey Cellar (24PA796)

The Maxey Cellar site is a prehistoric occupation site on a southeast sloping ridge just above Trail Creek. Lithics and bone were found in the roadcut but no tools, features or temporally diagnostic artifacts were noted. Disturbance of the site has occurred from the road and from buildings associated with the town of Chimney Rock and the Maxey North Mine, lower portion. Although the site was not tested the presence of materials in the road cut and in rodent burrows suggests the site contains subsurface materials.

### Old Trail Site (24PA797)

On the south side of Trail Creek on the first terrace is an undisturbed prehistoric occupation site. A few pieces of lithic debitage were found but no tools, features or temporally diagnostic artifacts were noted. The road to the Maxey South mine runs through the site. Although the site was not tested it is felt to contain potentially significant deposits which could yield further information to the local prehistory.

### Maxey Corral Site (24PA798)

Within the area of the Maxey North Mine, lower portion, is the Maxey Corral site. This site is buried and possibly disturbed by coal mining and ranching operations. This occupation area is under a corral, several centimeters of manure and coal slack, which capped the site and the extent of disturbance is felt to be minimal. Lithic materials and bone were noted on the surface and in a cutbank. The site was not tested but is felt to have potential to yield further information to the local prehistory.

## SUMMARY AND RECOMMENDATIONS

A cultural resource inventory and assessment was conducted on the following abandoned coal mine sites in Park County: Cokedale 1 (24PA782), Cokedale 2 (24PA781), Bucksin (24PA783), Number 30 (24PA784), Dilulo East and West (24-PA785), Maxey North (24PA786), Maxey South (24PA787), Maxey West (24PA793), Morrison (24PA788), and the Kountz (24PA789). This report includes three prehistoric sites located at the Maxey, North and South, Maxey Cellar (24PA-796), Old Trail (24PA797) and Maxey Corral (24PA798).

The mine sites, located in the Trail Creek, Timberline and the Cokedale districts of the Livingston coal field, first gained recognition as a potential source of locomotive fuel during the Hayden Survey in 1867. In 1881 the Northern Transcontinental Survey conducted a more thorough examination of the area for its potential to yield coal to power the nation's new railroad. The coming of the Northern Pacific Railroad to Bozeman and Livingston in the early 1880s prompted coal mining in the narrow mountain valleys south of Bozeman Pass to provide fuel for the railroad and for household use in these two growing communities. The growth of the smelting industry in Butte, Anaconda and East Helena also created a demand for coking coal. For the next 40 years relatively small numbers of miners extracted coal from the underground works of more than a dozen small mines in the area between the Yellowstone River and Trail Creek. The earliest and most productive mining activity occurred at two separate locations -- Cokedale and Maxey -- beginning in 1881.

Small towns grew up around the mines at Cokedale and Maxey, the two largest and longest lasting operations. The construction of over 100 coke ovens at Cokedale during the latter days of the nineteenth century led to the emergence of a town of 500 residents accompanied by a hotel, boarding houses, a post office and numerous cottages built by the mining company. A fire in the town and diminished coal deposits underground cut short the life of Cokedale. Although the community of Maxey proved more long-lived, it had fewer residents and commercial establishments than did neighboring Cokedale. In 1915 the Maxey brothers suspended operations along Trail Creek after losing the major coal seam. Operations resumed briefly in the early 1930s but by the late 1930s all mining activity had ceased in the Cokedale and Trail Creek Districts of the Livingston coal field.

The dozen mines located within the Cokedale and Trail Creek Districts of the Livingston coal field represented an important episode in the early history of underground coal mining in Montana. The peak years of production, 1890 to 1910, can be linked to the arrival of the railroad, an increased domestic need for fuel tied to a dramatic increase in population, and the growth of a smelting industry in need of coke for fuel. Mining in these two districts took place concurrently with activities at Aldridge and Electric in the southern end of Park County and those to the north in Gallatin County centered at Chestnut and Timberline. In all four instances the demise of the fledgling industry was tied to a shrinking demand for domestic coal and industrial coke and an exhaustion of easily recoverable, high quality coal. After 1910 underground coal mining shifted east to more extensive and easily recoverable reserves in Carbon County (Red Lodge) and Yellowstone County (Roundup) and to open-pit mining at Colstrip after 1924.

None of the historic mining structures remain completely intact at any of the 10 sites. Scattered remnants of both mining and residential structures can be seen at all of the sites, along with coal slack piles and mine adits. Two sites -- Cokedale 1 and Maxey North -- contain fragmentary vestiges of the original mining operation. This factor, along with the historical signifiance of both sites to early underground coal mining in Montana, make these sites eligible for inclusion on the National Register of Historic Places under Criterion A. Between initial development in 1881 and the end of mining in 1910 the operations at Cokedale and Maxey ranked high among Montana coal producers. The coke ovens, located immediately east of the Cokedale 1 mine site, represent an outstanding example of a technology introduced in several locations in Montana to process coal for use in the state's growing smelting industry. In addition to the historic sites there are three prehistoric sites located at Maxey North and South, which all have potential to provide further information about early life along Trail Creek and should be tested prior to impact by reclamation plans.

During the reclamation process we recommend that efforts be made to avoid disturbing standing structures at both the Cokedale 1 and Maxey North sites and that further mapping be completed at the Maxey West site prior to the removal of any structures. If any of the standing structures at Cokedale 1 and Maxey North are to be removed the sites ought to be photographed with a large format (4x5) camera as a mitigative measure. The prehistoric site Maxey Corral site (24PA798) is covered by coal slack and reclamation plans call for removing this slack along the creek. Unless plans are altered this site should be tested to determine the boundaries and the actual significance potential of the site. The other two prehistoric sites are cut by roads and will receive no impact unless the roads are upgraded. The remaining eight mine sites have all been recorded, mapped and photographed and no further work is recommended.

## REFERENCES

Bateman, Andrew F.
1966 Montana's Coal Resources, Proceedings of First Montana Coal Resources Suymposium, Special Publication 36. Montana College of Mineral Science and Technology, Butte.

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

Chadwick, Robert A.
1973 Coal, Montana's Prosaic Treasure, Montana: Magazine of Western History. Fall 23(4): 18-31.

Finch, Thomas
1985 History of Montana Coal Mining, Montana Coal Forum, Montana Bureau of Mines and Geology Special Publication 93. Montana College of Mineral Science and Technology.

Munson, Gene
1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in the Gallatin County portion of the Livingston Coal Field, Montana. For the Montana Department of State Lands. GCM Services, Inc. Butte.

Montana Inspector of Mines
1889 Annual Reports. Independent Publishing Company, Helena.
1892 Annual Reports. Independent Publishing Company, Helena.
1905-1906 Annual Reports. Independent Publishing Company, Helena.

Parsons, Floyd W.
1907 The Operation of Coal Mines in Montana, The Engineering and Mining Journal. December 84(14): 1071-1074.

Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Rowe, J. P.
1909 The Coal-Mining Industry of Montana, Engineering and Mining Journal April 24.

Shovers, Brian
1987 A Cultural Resource Inventory and Evaluation of Selected Abandoned Coal Mines in Park County - Part 2. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

Weed, Walter
1892 The Coal Fields of Montana -I, Engineering and Mining Journal, May 14.

Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.

# APPENDIX A:

## Site Forms

Cokedale 1 (24PA782)
Cokedale 2 (24PA781)
Buckskin (24PA783)
Number 30 (24PA784)
Dilulo East and West (24PA785)
Maxey North (24PA786)
Maxey South (24PA787)
Maxey West (24PA793)
Morrison (24PA788)
Kountz (24PA789)
Maxey Cellar site (24PA796)
Old Trail (24PA797)
Maxey Corral site (24PA798)

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 1 Locational Information

1.1 Site number: 24PA781

1.2 Site name/field designation: Cokedale Mine 2

1.3 County: Park

1.4 Township/range:

T 2S R 8E SW 1/4 of SW 1/4 of Section 22

1.5 UTM:

Zone 12 520 980 Easting 5054 120 Northing

1.6 Site type: historic coal mine

1.7 Recording status & comments: photographed, mapped and recorded

1.8 Administrative/surface ownership:

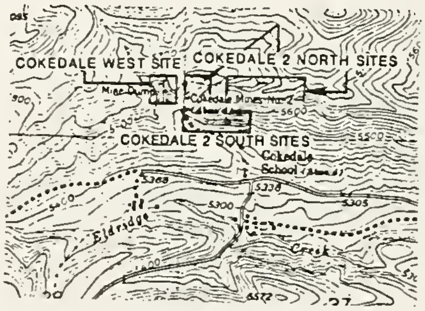
Lillian Kezer
Rt. 62, Box 3236
Livingston, MT 59047

1.9 Mineral ownership: Lillian Kezer

1.10 Project name: Department of State Lands Abandoned Mine Reclamation Program

1.11 General narrative description of site:
The site is an abandoned late nineteenth century underground coal mine located approximately eight miles west of Livingston. Little evidence remains of the historic mining operation. On the hillside there are several subsidence pits, some coal slack, an open adit and several collapsed adits. The site is surrounded by grazing and agricultural land. The Cokedale mines produced large quantities of coking quality coal for use in Montana smelters between 1883 and 1910.

1.12 Map reference: Hoppers, Mont. 1:24000 1951



1.13 City/town: Livingston, Mont. [x] vicinity of

1.14 Access to site:
Approximately 4.5 miles west of Livingston along the Frontage road turn left on the Cokedale Road and proceed west for approximately 4 miles past the coke ovens and Cokedale No. 1 mine. Turn right and proceed through a closed gate up a dirt road just before reaching a major road leaving the Cokedale road on the left. Proceeding up the dirt road there is a small woodframe schoolhouse on the left. Proceed up through several contemporary structures and follow the primitive road to a hay field on the right. The site is located just above the hayfield to the east.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA781

2.1 Geographic setting:

2.2 Elevation: 1731 m 5680 ft.

The site is on a sage covered hillside above an intermountain valley drained by Eldridge Creek, north and west of the Absaroka and Gallatin Ranges.

2.3 View/aspect:
Open to the northwest.

2.4 Major drainage:
Eldridge Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Eldridge Creek | .4 mile | 380 ft | year around |
| b. | N. Fork Eldridge Creek | .25 mile | 180 ft | year around |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, wheatgrasses, Douglas hawthorne, rose

2.9 Soils:

sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:

50%/fall

2.11 Other environmental factors pertaining to site location:
The site is located in the Cokedale district of the Livingston Coal Field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA781

3.1 Condition of site:
None of the historic structures associated with historic underground coal mining remain. The only evidence of the early twentieth century mining activity are several scattered piles and collapsed adits.

3.2 Site significance (NRHP):

Although this mining site played an important role in early Park County coal mining, the absence of historic structures relating to this industrial activity makes this site ineligible for inclusion in the National Register of Historic Places.

☐ Attachments:

3.3 Impacts:
The reclamation plan recommends backfilling subsidences, removing slack piles, and sealing open adits which will not negatively impact cultural resources at this site. (See narrative for details of reclamation plan.)

3.4 Recommendations:
The site has been photographed, mapped and recorded and no further work is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde, Jim Duran,<br>Brian Shovers<br>Date: 9/87 | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran,<br>Brian Shovers<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

See attached.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| No. | Description | View |
|---|---|---|
| 1987 Cokedale #2 proofs<br>Roll 4, #7-17 | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA781

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5.1 Site dimensions, how determined:
upper - 1080 x 240 ft
lower - 240 x 240 ft

79,004 $m^2$

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5.2 Features:
see attached

---

5.3 Artifacts (observed, collected):

None observed or collected.

---

5.4 Historical information and evaluation:
The Cokedale No. 2 mines, located west of the Cokedale No. 1 mines, were developed by Livingston Coal and Coke Company (L.C.&C.CO.) concurrently with its namesake to the east primarily to provide ventilation and emergency exits for their original mines. Exploitation of coal reserves at the No. 2 did not occur until Oscar James, a Spokane entrepreneur, assumed control of the Cokedale operations after 1898. James directed the sinking of a 200-ft inclined shaft known as the James Entry, with levels at both 80 and 280 ft. These levels extended eastward to intersect the upraises of the No. 1 mines. Here James' men encountered numerous faults which ultimately prompted closure of these drifts. Over a period of a year the James crew removed all the readily accessible coal, including the pillars, achieving a daily coke output of 20 tons. James shipped all the coke from the No. 2 mines to the Spokane Gas & Fuel Company for use in the manufacture of gas (Roberts 1966).

Although mining activities at the No. 2 mines lasted only several years it is still recognized as part of the much larger and more productive Cokedale District which shipped processed coke to smelting operations in Butte, Anaconda, East Helena and Great Falls for almost 20 years just prior to and after the turn of the century.

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5.5 References
(See Section 3.9)

---

5.6 Subsurface testing, results, methods, etc.

None

## 3.9 Publications (continued)

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Shovers, Brian
1987 Cultural Resource Inventory and Evaluation of Selected Abandoned Coal Mines in Park County - Part 2. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

Weed, Walter
1892 The Coal Fields of Montana -I, Engineering and Mining Journal, May 14.

Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.

## 5.2 Features: (continued)

### Cokedale Sites

#### Cokedale West Side

Feature 1 - collapsed adit with rock face - cut into hillside.
Feature 2 - large coal slack pile with smaller pile south of it.

#### Cokedale #2 South Sites

Feature 1 - a retaining wall measuring 10 ft wide. A small coal slack pile is immediately to the southwest, just off the curve in the road. A new residence is being constructed just south.
Feature 2 - coal slack pile.
Feature 3 - collapsed adit with depression.
Feature 4 - coal slack with wood debris on top and to the south.
Feature 5 - adit - natural stone wall - entrance partially collapsed. Depression in front of this.

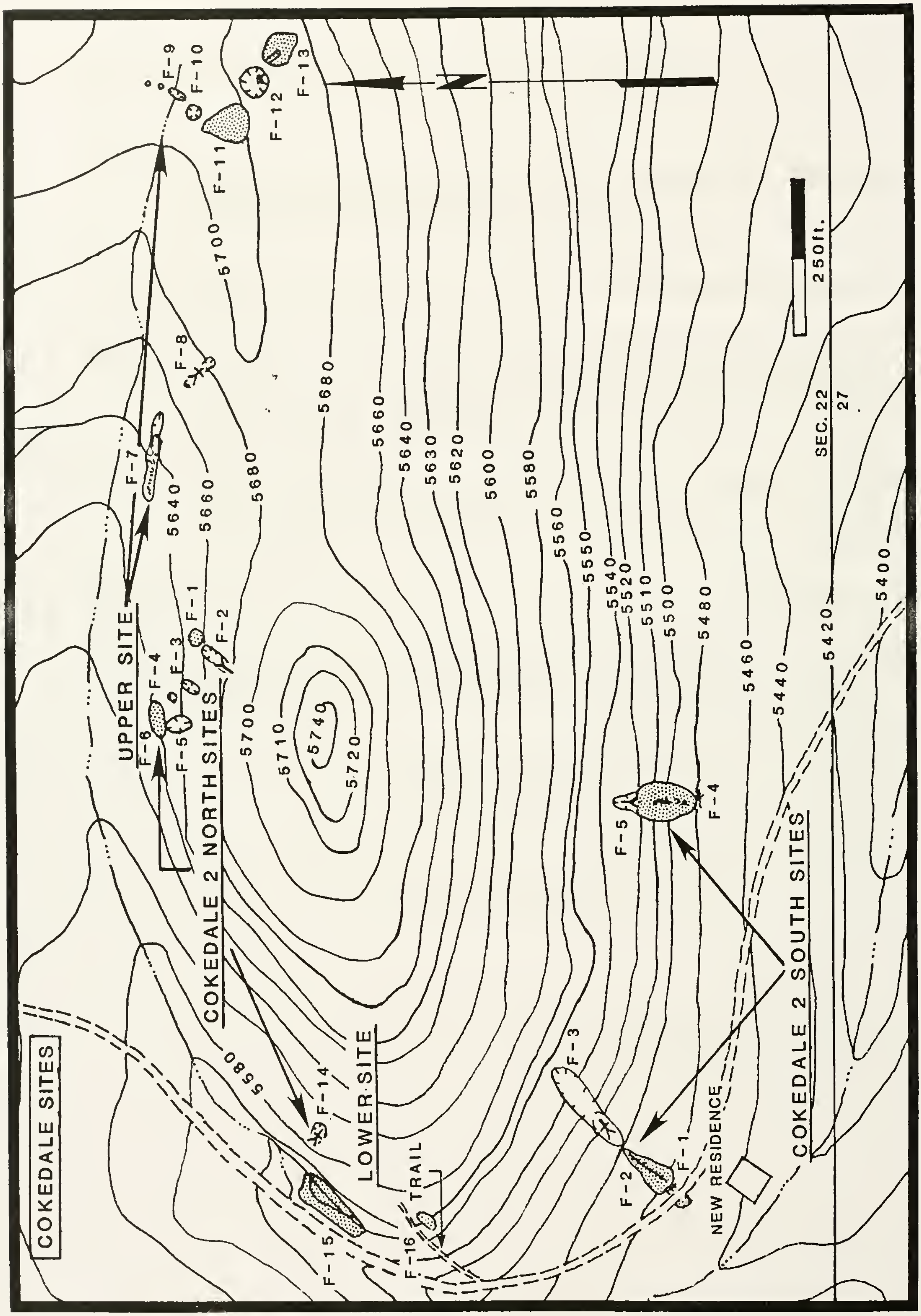
### Cokedale - two north sites

#### Upper Site

Feature 1 - coal slack pile.
Feature 2 - collapsed adit with depression.
Feature 3 - subsidence pit.
Feature 4 - small subsidence pit.
Feature 5 - subsidence pit.
Feature 6 - coal slack pile.
Feature 7 - possible collapsed adit - wood debris in depression.
Feature 8 - collapsed adit with depression.
Feature 9 - two small and one large subsidence pit.
Feature 10- subsidence pit.
Feature 11- coal slack pile.
Feature 12 - collapsed adit structures in depression
6 x 26 ft collapsed structure
Feature 13 - coal slack pile

#### Lower Site

Feature 14 - collapsed adit with depression.
Feature 15 - coal slack pile.
Feature 16 - small coal slack pile.


COKEDALE SITES
UPPER SITE
COKEDALE 2 NORTH SITES
LOWER SITE
COKEDALE 2 SOUTH SITES
F-1
F-2
F-3
F-4
F-5
F-6
F-7
F-8
F-9
F-10
F-11
F-12
F-13
F-14
F-15
F-16
F-1
F-2
F-3
F-4
F-5
TRAIL
NEW RESIDENCE
SEC. 22
27
250ft.
5740
5720
5710
5700
5680
5660
5640
5630
5620
5600
5580
5560
5550
5540
5520
5510
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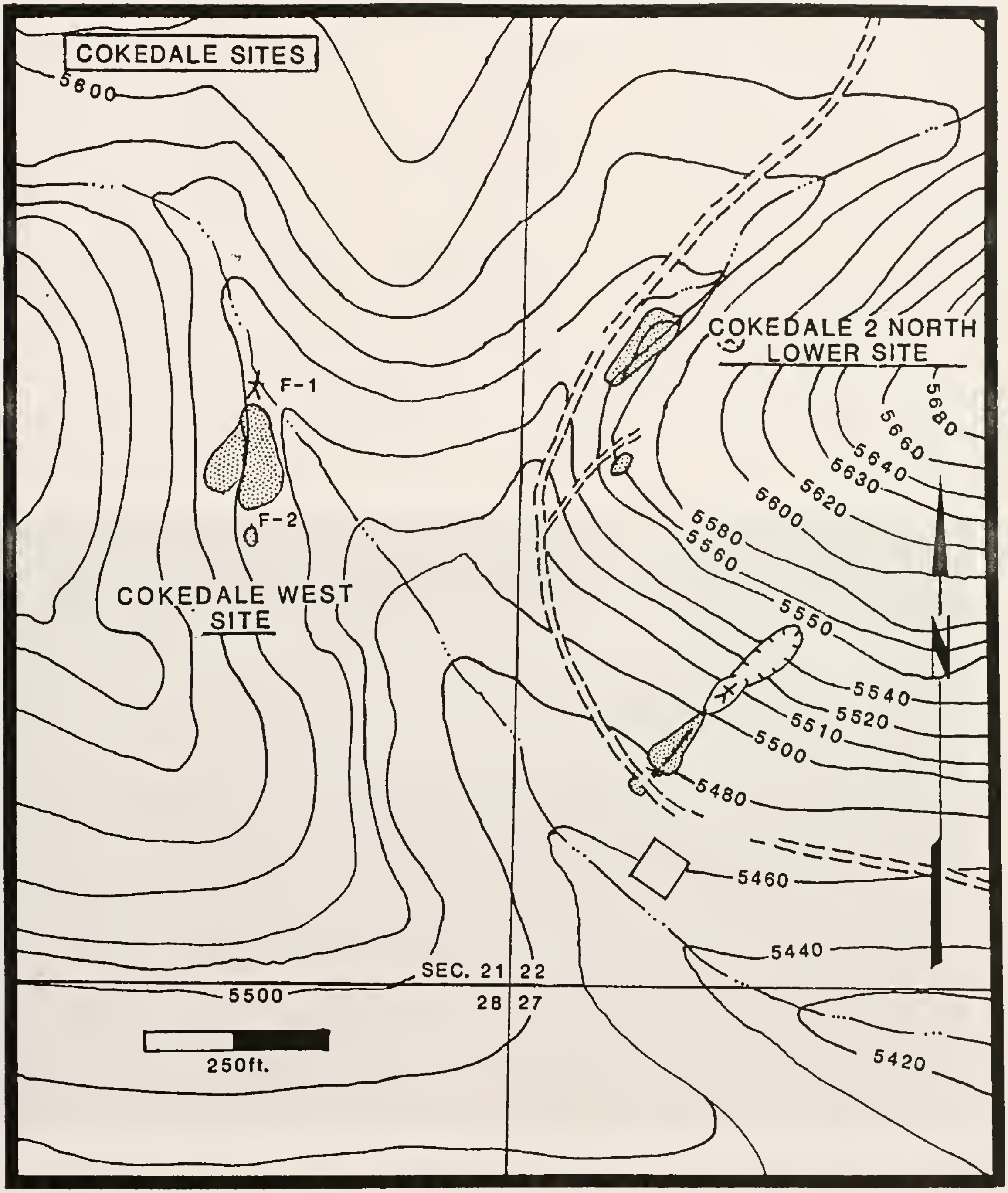

COKEDALE SITES
5600
F-1
F-2
COKEDALE WEST SITE
COKEDALE 2 NORTH LOWER SITE
5680
5660
5640
5630
5620
5600
5580
5560
5550
5540
5520
5510
5500
5480
5460
5440
5420
SEC. 21 22
28 27
5500
250ft.

Coal slack pile at Cokedale 2 North Upper Site. View to the north.

## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 1 Locational Information

| | | |
|---|---|---|
| 1.1 Site number:<br>24PA782 | 1.2 Site name/field designation:<br>Cokedale Mine 1 | 1.3 County:<br>Park |

1.4 Township/range:

| | | | |
|---|---|---|---|
| T 2S | R 8E | NW 1/4 of NW 1/4 | of Section 26 |
| | | SW 1/4 of SW 1/4 | of Section 23 |

1.5 UTM:

Zone 12 522 700 780 Easting 5054 040 140 Northing

| | |
|---|---|
| 1.6 Site type:<br>historical coal mine | 1.7 Recording status & comments:<br>photographed, mapped and recorded |

1.8 Administrative/surface ownership:

Lillian Kezer
Rt. 62, Box 3236
Livingston, MT 59047

1.9 Mineral ownership:
Lillian Kezer

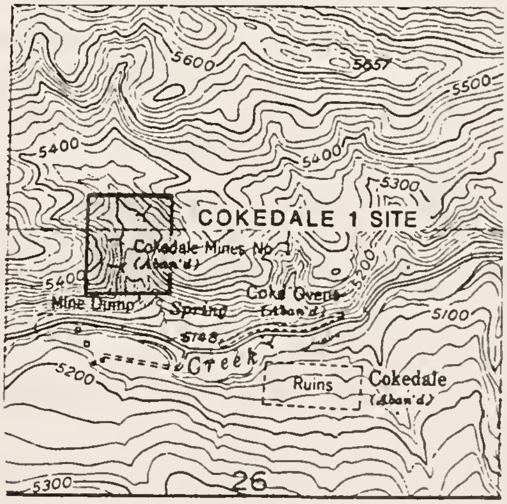
1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

1.11 General narrative description of site:
The site is an abandoned underground coal mine located approximately seven miles west of Livingston. The site includes several collapsed adits, numerous depressions and slack piles, an open shaft (located in a pond along the road), the ruins of a stone powder house east of the road and the stone foundation for the mine's hoist house. The Cokedale mines produced large quantities of coking-quality coal for use in Montana smelters between 1883 and 1910.

1.12 Map reference:
Hoppers, Mont. 1:24000 1951

1.13 City/town: ☒ vicinity of
Livingston, MT

1.14 Access to site:
Approximately 4.5 miles west of Livingston along the frontage road turn left on the Cokedale road and proceed west for approximately three miles. After passing the Cokedale ovens look for a locked gate on the right. Go through the gate (with Kezer's permission) and you will be adjacent to the original hoist house foundation and the remains of the historic mining operations.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA782

2.1 Geographic setting:

2.2 Elevation: 1615.44 m 5300 ft.

The site is located in an east/west oriented intermountain valley along Miner Creek. The mine is located in the sage-covered foothills above the valley floor, north and west of the Absaroka and Gallatin Ranges.

2.3 View/aspect:
open to south

2.4 Major drainage:
Miner Creek

2.5 Minor drainage(s):
Spring

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Miner Creek | 800 ft | 120 ft | year around |
| b. | small spring emanates from base of site | | | |

2.7 Regional vegetation:

foothill/grassland (Payne 1973)

2.8 Local vegetation:

willow, western snowberry, Douglas hawthorne, rose, quaking aspen, alder, sagebrush, wheatgrass

2.9 Soils:

sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:

50%/fall

2.11 Other environmental factors pertaining to site location:

The site is located in the Cokedale District of the Livingston coal field.

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA782

3.1 Condition of site:
All of the historic structures at the site have either been removed or have completely deteriorated leaving only foundations, collapsed adits or depressions.

3.2 Site significance (NRHP):
Underground coal mining and coking activities during Montana's first period of coal mining (1883-1910) within the Livingston coal field occurred on this site. Coal mined and processed here was used to fuel the smelters in Butte and Anaconda, an important aspect of Montana's early industrial development. The only structures remaining on the site are the ruins of the hoist house and the stone powder house but they still evoke a feeling of the industrial activity that took place in this agricultural setting. A short distance to the east stand the ruins of the Cokedale coke ovens which contribute to the interpretation of this site. Across Miner Creek, to the south, are the ruins of the town of Cokedale. Because of the significance of Cokedale to the early Montana coal and smelting industry this site is eligible for inclusion to the National Register of Historic Places under criterion A.

3.3 Impacts:
The reclamation plan recommends using the waste dumps to backfill subsidence pits and adit depressions which will not impact any of the remaining cultural resources.

3.4 Recommendations:
The site has been photographed, mapped and recorded and no further work is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde, Jim Duran and Brian Shovers<br>Date: 9/87 | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran and Brian Shovers<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:
See attached.

(continued)

| | |
|---|---|
| 3.10 Artifact repository:<br>none collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| No. | Description | View |
|---|---|---|
| 1987 Cokedale #1 proofs<br>(roll 3) #32-36, #1-6 (roll 4) | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA782

5.1 Site dimensions, how determined:
750 x 1000 ft

228,600 $m^2$

5.2 Features:

Feature 1 - coal slack pile with cut in it. Brick debris at west end.
Feature 2 - stone retaining wall just off road measuring 46 ft long. Boiler located west.
Feature 3 - grave site of Agnes Williams (daughter-in-law of Wm. H. Williams) in plowed field just inside fence.
Feature 4 - stone ruins of hoist house for Cokedale mines measuring 92 x 13 ft. Dump area to the north and west.
Feature 5 - pond with Cokedale Mine shaft at northwest corner.
Feature 6 - subsidence pit.
Feature 7 - subsidence pit.
Feature 8 - subsidence pit with open adit.
Feature 9 - coal slack pile.
Feature 10- coal slack pile.
Feature 11- collapsed adit with depression.
Feature 12- collapsed adit with larger depression.
Feature 13- small coal slack pile.
Feature 14- larger coal slack pile.
Feature 15- stone foundation of powder house with 3 ft thick walls measuring 16 x 26 ft.

A large debris area is located south of features 5 and 6 containing an International Scout, metal debris, truck bed, concrete foundation blocks, Ford truck, water tanks, farm machinery, corrugated metal, seed drill.

The dump west and north of Feature 4 consists of beds, metal debris, auto parts, brick and concrete.

5.3 Artifacts (observed, collected):
The site contains scattered metal debris, most of which does not seem related to the historic mining operation.

5.4 Historical information and evaluation:

See attached.

5.5 References
(See Section 3.9)

5.6 Subsurface testing, results, methods, etc.
None

## 3.9 Publications (continued)

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

Montana Inspector of Mines Reports
1889 and 1892 Independent Publishing Company, Helena, Montana.

Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Rowe, J. P.
1905 The Montana Coal Fields: Their Commercial Value, Mining Magazine. March.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Shovers, Brian
1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

Weed, Walter
1892 The Coal Fields of Montana -I, Engineering and Mining Journal, May 14.

Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.

5.4 Historical information and evaluation: (continued)

In 1883 William H. Williams began production in a series of underground coal mines lcoated approximately eight miles west of Livingston above Miner Creek. The Cokedale mines, developed concurrently with the early Timberline mines in Gallatin County, ranked as one of the highest producing mines in the Livingston Coal Field by the mid-1890s. By 1889 miners at the Cokedale No. 1 mines extracted enough sub-bituminous coal to fire 78 coke ovens, producing 100 tons of coke per day; however, the district's high productivity proved short-lived. By 1906 the coal seams at Cokedale played out, the drifts filled with water and the hoisting engines remained silent (Roberts 1966).

Although William H. Williams deserves credit for developing the first coal mine along Miner Creek and building the first coke oven in 1882 just east of the future townsite of Cokedale, it would be some eight years later before the area gained a reputation as a major coal district. Several owners followed Williams, V. E. Tull in 1885 and Helena entrepreneur Samuel Hauser in 1888. Hauser consolidated the mines at east Cokedale into the Livingston Coal & Coke Company (L.C.& C.Co.), making the capital investment necessary to supply the men and machinery for large-scale development. When Hauser took charge previous owners had already directed the opening of a horizontal drift 700 ft long. Mine engineers for the L.C.&C.Co. initiated the sinking of an inclined shaft some 300 ft west of the original portal. Within eight years the shaft reached a depth of 1200 ft and the workings were comprised of five levels each some 200 to 300 ft apart. The miners advanced these drifts along the western orientation of the coal bed for as much as 5500 ft on one level. During its first year of operation under the direction of the L.C. & C.Co. the Cokedale No. 1 mines produced 49,400 tons of coal, a remarkable achievement under new management (Roberts 1966; Montana Mine Inspector 1889).

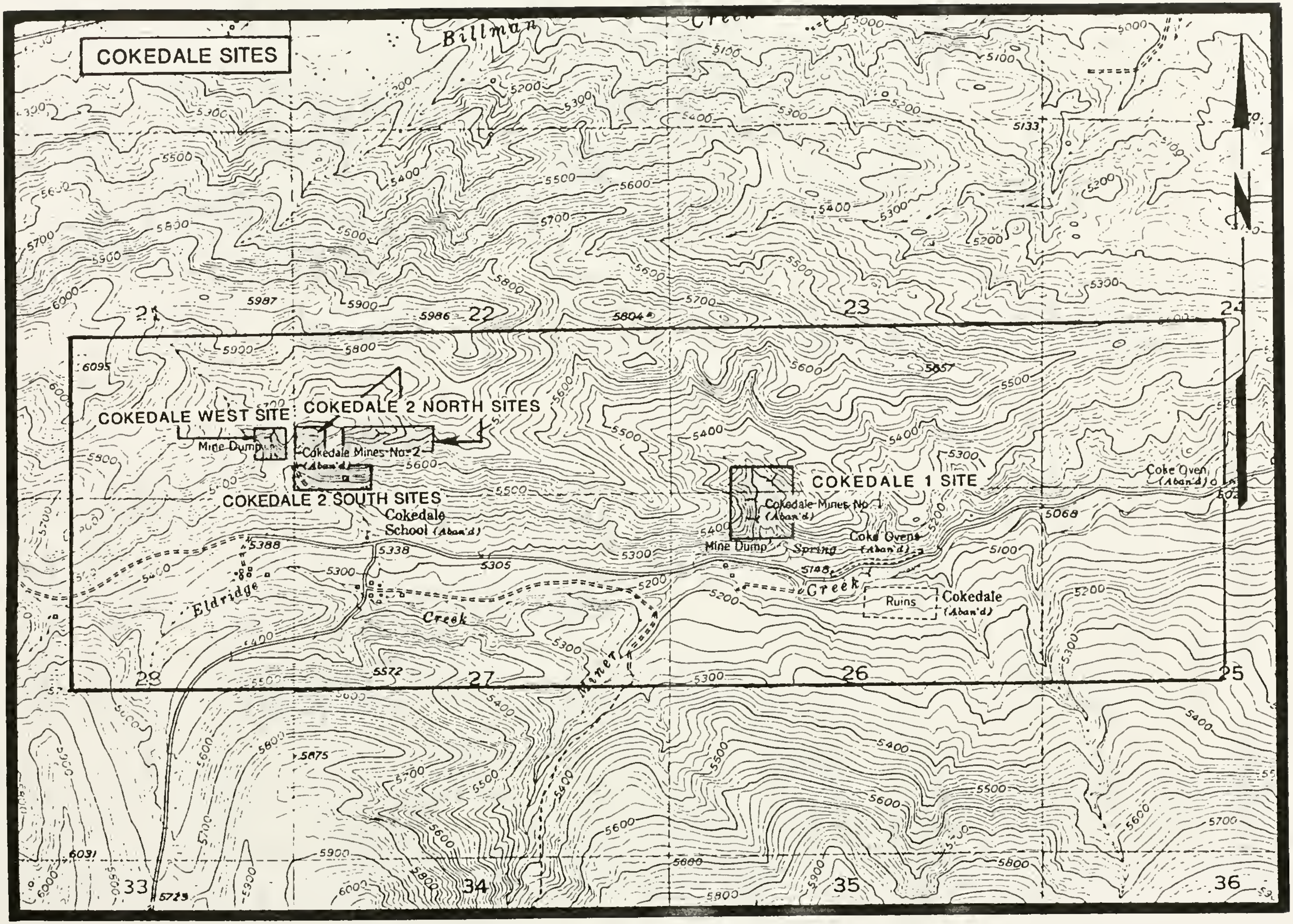
The great success of the L.C. & C.Co. can be attributed to in part to the high grade of coal found at Cokedale and also to the technologies employed to process and transport it. In 1889 the Montana mine inspector described the coal taken from the Cokedale No. 1 mines as "chippy" coal, distinguished when coked by its "bright metallic lustre and sharp ring." Chippy coal, although containing a relatively high heat value (10,950 B.t.u.'s), also required washing to remove large quantities of ash. In 1889 the L.C. & C.Co. constructed a wash house, connected with the mine mouth via a 1/4 mile coal car tram in 1898. The company also erected a narrow gauge rail track to transport the coal from the washer to the top of the extensive row of coke ovens extending east of the mines. As early as 1887 L.C. & C. Co. constructed a three and one-half mile rail spur from the Northern Pacific mainline to the Cokedale coke ovens over a period of a month and one-half at a cost of $55,000. This Northern Pacific spur served a total of 130 coke ovens by the beginning of the twentieth century. The earliest of these five-ton ovens were constructed from Ohio firebrick but by 1887 builders employed a local fire clay for the Cokedale ovens. The finished product, derived from 72 hours of firing, was then shipped by rail to Butte, Anaconda, East Helena, and Great Falls for use in smelters there (Whithorn 1976).

By 1892 L.C. & C. Co. confined its work in its No. 1 mines to the three drifts west of the shaft. In 1893 the 250 miners working at these Cokedale mines, under direction of Superintendent George T. Wickes, produced 58,000 tons of coke, 5.4 Historical information and evaluation: (continued)

the largest amount ever shipped during the mines' 30 years of operation. Working in the main drift at the 600 ft level the miners encountered a 5 ft thick seam of coal which was removed using a 24 x 40 in. double cylinder steam engine. Frenetic activity underground prompted the establishment of a community south of the coke ovens and mines which was larger than Livingston. By 1891 the town of Cokedale numbered 500 residents and included a general store, saloon, hotel, boarding houses, school, post office and 50 cottages erected by the mining company. The boom in mining and town growth proved short-lived, however. A fire on July 30, 1895 in the boiler house destroyed the air compressor and hoisting engine. This was followed by the failure of Hauser's First National Bank in Helena in 1896 which closed the No. 1 mines that same year. With the mine closure pumps were removed, allowing the underground workings to flood without regard for future development (Whithorn 1976; Roberts 1966; Montana Mine Inspector Report 1892; Finch 1985).

A scaled-down mining operation resumed in 1898 when Spokane entrepreneur Oscar James puchased the Cokedale mines from the L.C.& C.Co. creditors. James directed the pumping of the original inclined shaft, allowing miners to remove the pillars of coal left by the initial operators in the upper levels. Although James' crews began shipping raw coal again, the coke operation did not resume. Finally in 1902 the Anaconda Copper Mining Company (A.C.M.) assumed ownership of the operation and pursued rehabilitation of the operation. Before reopening the No. 1 mines in the summer of 1903 A.C.M. put men to work repairing the washer, preparing the coke ovens for firing, and opening the 6th level located 300 ft below the 5th. By 1904 A.C.M.'s 75 employees used 100 operating ovens to produce 7000 tons of coke. Like other coal mines linked to Anaconda smelting Cokedale production suffered between 1903 and 1905 because of the war waged between mine owners in Butte over copper claims. With the cessation of hostilities in Butte in 1905 and A.C.M.'s subsequent dominion over the Butte hill, the No. 1 mines regained its status as a leading coke producer (Roberts 1966; Rowe 1905; Whithorn 1976).

Without four short years A.C.M. abandoned No. 1 mines, ending a brief but productive era of mining in the Cokedale district. On April 15, 1906 A.C.M. closed the No. 1 mine, citing diminishing coal deposits as a cause. Although the Cokedale coal beds extended for some three miles, prospects both east and west of the No. 1 mines revealed increasingly thin and impure coal beds. The town of Cokedale, already weakened by a major fire the previous July, succumbed with A.C.M.'s departure even though efforts were in progress to rebuild the town. By 1908 the Northern Pacific rail spur had been torn up and a U.S.G.S. geologist reported an end to all mining activity along Miner Creek (Calvert 1912; Whithorn 1976).


COKEDALE SITES
Billman
Creek
COKEDALE WEST SITE
Mine Dump
COKEDALE 2 NORTH SITES
Cokedale Mines No. 2 (Aban'd)
COKEDALE 2 SOUTH SITES
Cokedale School (Aban'd)
COKEDALE 1 SITE
Cokedale Mines No. 1 (Aban'd)
Mine Dump
Spring
Coke Ovens (Aban'd)
Coke Oven (Aban'd)
Ruins
Cokedale (Aban'd)
Eldridge
Creek
Creek
Miner
21
22
23
24
25
26
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5987
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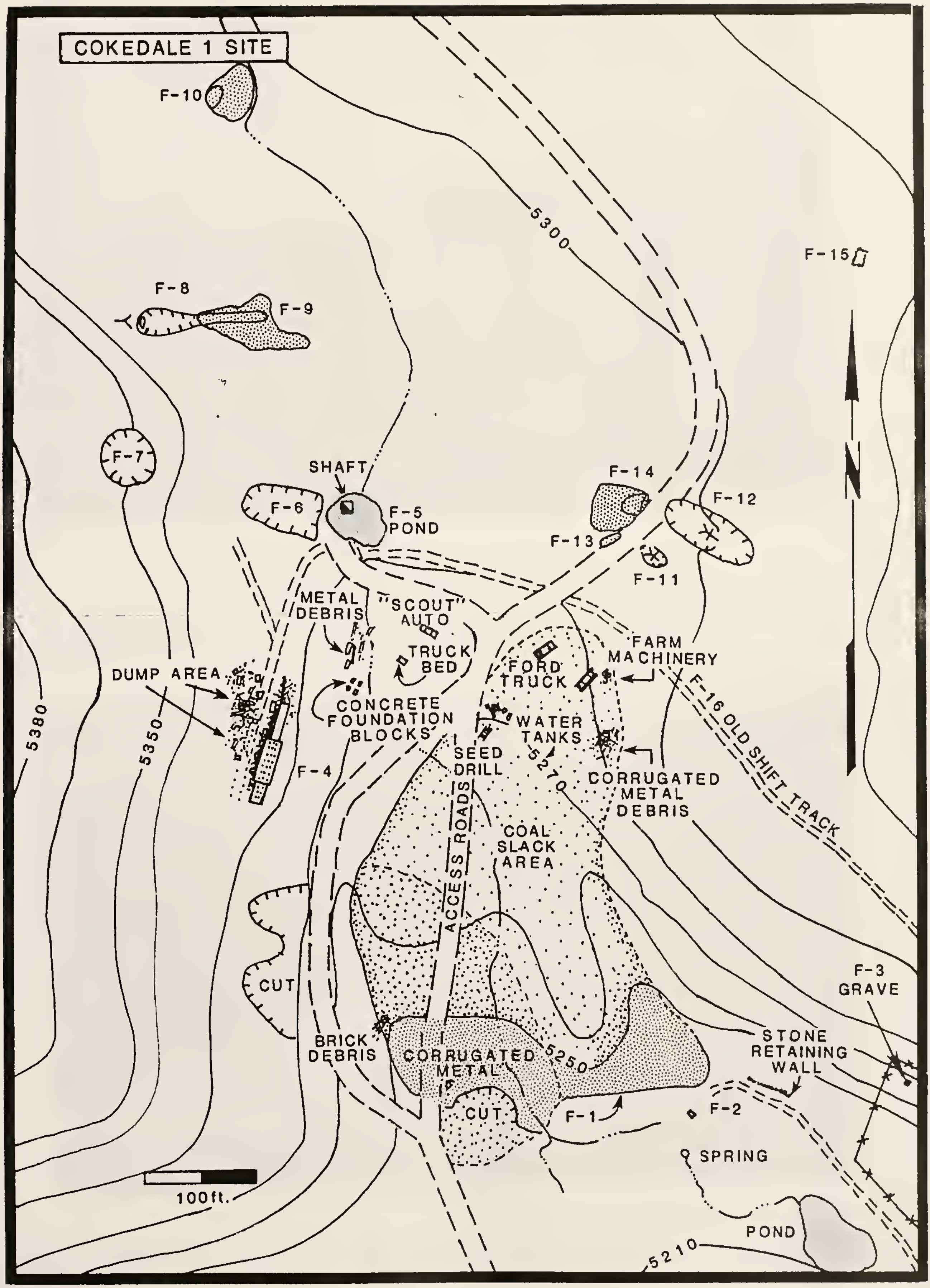
COKEDALE 1 SITE
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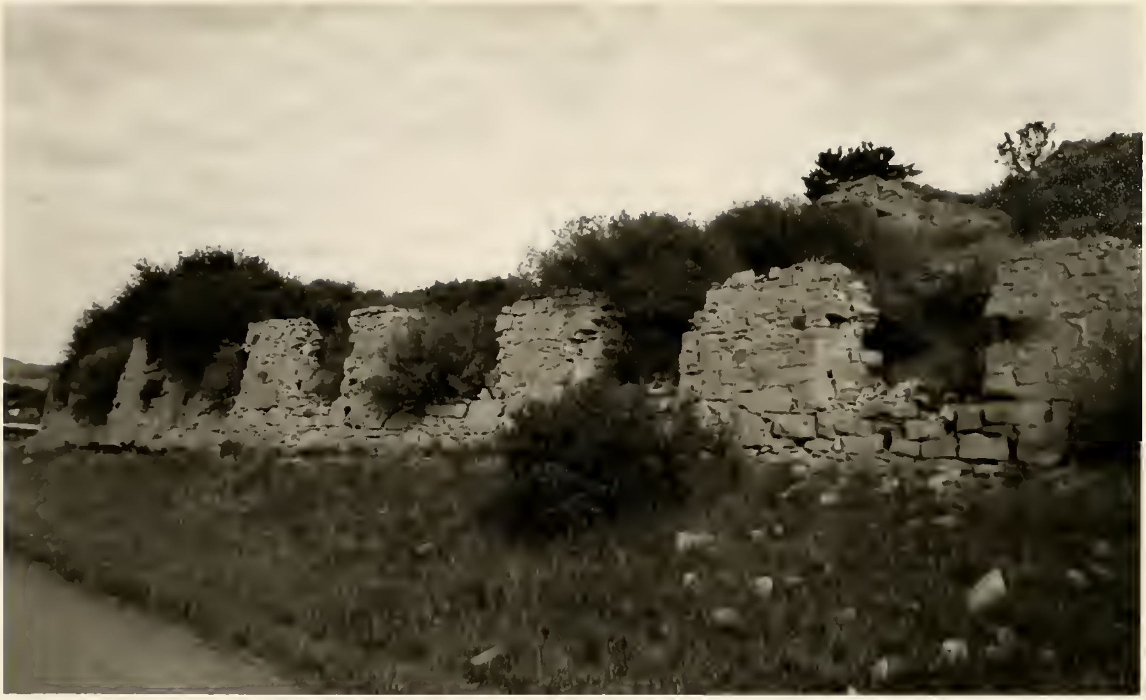
5300
F-15
F-8
F-9
N
F-7
SHAFT
F-14
F-6
F-5
POND
F-12
F-13
F-11
METAL
DEBRIS
"SCOUT"
AUTO
FARM
MACHINERY
TRUCK
BED
FORD
TRUCK
DUMP AREA
F-16 OLD SHIFT TRACK
CONCRETE
FOUNDATION
BLOCKS
WATER
TANKS
5380
5350
SEED
DRILL
5270
F-4
CORRUGATED
METAL
DEBRIS
ACCESS ROADS
COAL
SLACK
AREA
F-3
GRAVE
CUT
STONE
RETAINING
WALL
BRICK
DEBRIS
CORRUGATED
METAL
5250
CUT
F-1
F-2
SPRING
100ft.
POND
5210



Coke ovens at Cokedale. View to the west-northwest.

Ruins of stone powder house at Cokedale 1 Site. View to northwest.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 1 Locational Information

| | | |
|---|---|---|
| 1.1 Site number:<br>24PA783 | 1.2 Site name/field designation:<br>Buckskin Mine | 1.3 County:<br>Park |

1.4 Township/range:

T 2S R 8E NW 1/4 of the NW 1/4 of Section 28

1.5 UTM:

Zone 12 519 300 Easting 5053 600 Northing

| | |
|---|---|
| 1.6 Site type:<br>historic coal mine | 1.7 Recording status & comments:<br>photographed, mapped and recorded |

1.8 Administrative/surface ownership:

Lillian Kezer
Rt. 62, Box 3236
Livingston, MT 59047

1.9 Mineral ownership:
Lillian Kezer

1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

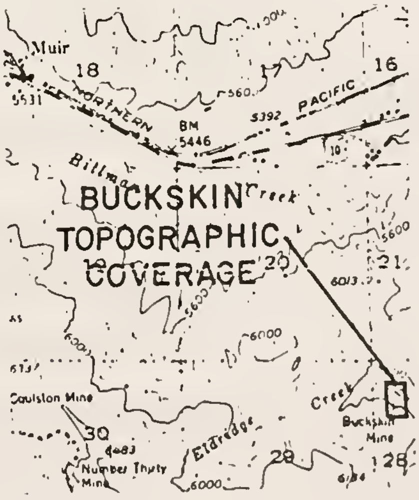
1.11 General narrative description of site:

The site contains an abandoned late nineteenth century underground coal mine located approximately 10 miles west of Livingston. Little evidence remains of the historic coal mining operation. On the hillside one can see several subsidence pits, a large pile of coal slack and several collapsed adits. The site is surrounded by grazing and agricultural land.

1.12 Map reference:
Bozeman Pass, Mont. 1:62500 1951

1.13 City/town: ☒ vicinity of
Livingston, Montana

1.14 Access to site:
Approximately 4-1/2 miles west of Livingston along the frontage road turn left on the Cokedale road and proceed west for approximately 5-1/2 miles past the Cokedale coke ovens and the historic one-room Cokedale school. Just before the road begins to climb (up to Elk Ridge) there is a rather large coal slack pile on the left. Park and proceed through the open gate up the hill to the site.



## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 2. Environmental Setting

Site number: 24PA783

2.1 Geographic setting:

2.2 Elevation: 1707 m 5600 ft.

The site is located along the upper reaches of Eldridge Creek near the upper end of the Miner Creek Valley. The site is located on the grassy, sparsely timbered foothills of the Gallatin Range, north and west of the Absarokas.

2.3 View/aspect:
open to the north/northeast

2.4 Major drainage:
Miner Creek

2.5 Minor drainage(s):
Eldridge Creek

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Miner Creek | 1.2 miles | 180 ft | year around |
| b. | Eldridge Creek | 100 ft | 40 ft | year around |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
Douglas fir, Douglas hawthorne, western snowberry, rose spiraea, wheatgrass

2.9 Soils:

sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:

100%/ fall

2.11 Other environmental factors pertaining to site location:
The site is located in the Cokedale District of the Livingston coal field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA783

3.1 Condition of site:
None of the historic mining structures remain. The only evidence of mining are the scattered slack piles, subsidence pits and adit depressions.

3.2 Site significance (NRHP):
Although the Bucksin Mine started in the late 1880s, a period of significant coal and coke production in the Cokedale District, nothing remains of historic structures and the operation here was so short-lived that the site does not qualify for inclusion on the National Register of Historic Places.

☐ Attachments:

3.3 Impacts:
The reclamation plan recommends backfilling adit depressions and subsidence pits with coal slack from the site which will not have a negative impact on existing cultural resources.

3.4 Recommendations:
The site has been photographed, mapped and recorded and no further work is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde, Jim Duran and Brian Shovers<br>Date: 9/87 | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran, Brian Shovers<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

Payne, Gene F. 1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E. 1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Shovers, Brian 1987 A Cultural Resource Inventory and Evaluation of Selected Abandoned Coal Mines in Park County - Part 2. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>none collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| No. | Description | View |
|---|---|---|
| 1987<br>Buckskin Proofs Roll 4 - #18-22 | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA783

5.1 Site dimensions, how determined:
680 ft x 520 ft

107,774 m$^2$

5.2 Features:
Featire 1 - coal slack pile
Feature 2 - collapsed adit with depression
Feature 3 - depression with metal debris inside
Feature 4 - coal slack pile
Feature 5 - collapsed adit with depression
Feature 6 - coal slack pile
Feature 7 - trench and depression with trail running alongside it.
Two coal slack piles are located northeast of the site above the access road.

5.3 Artifacts (observed, collected):
Several pieces of metal debris were observed.

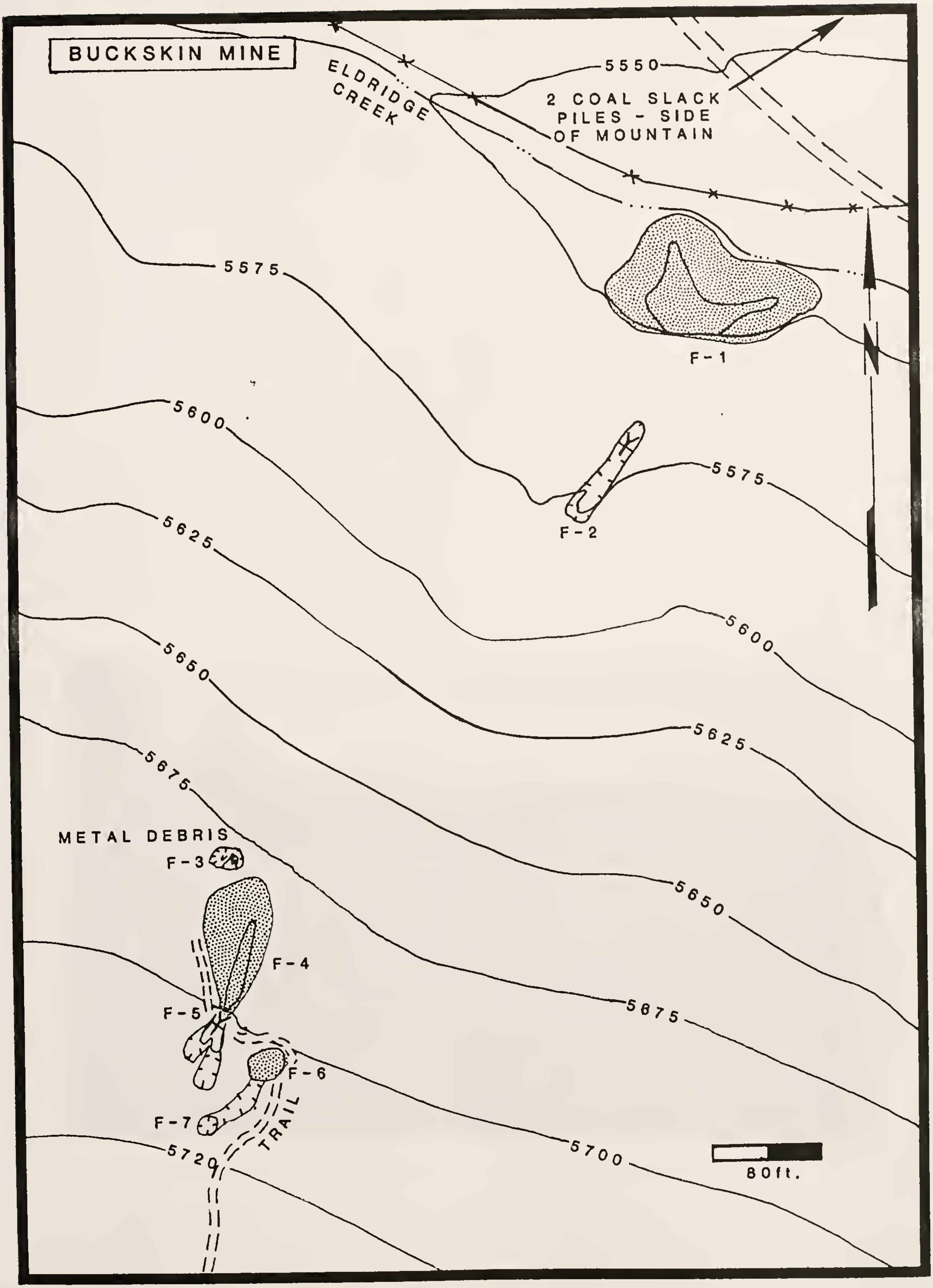
5.4 Historical information and evaluation:

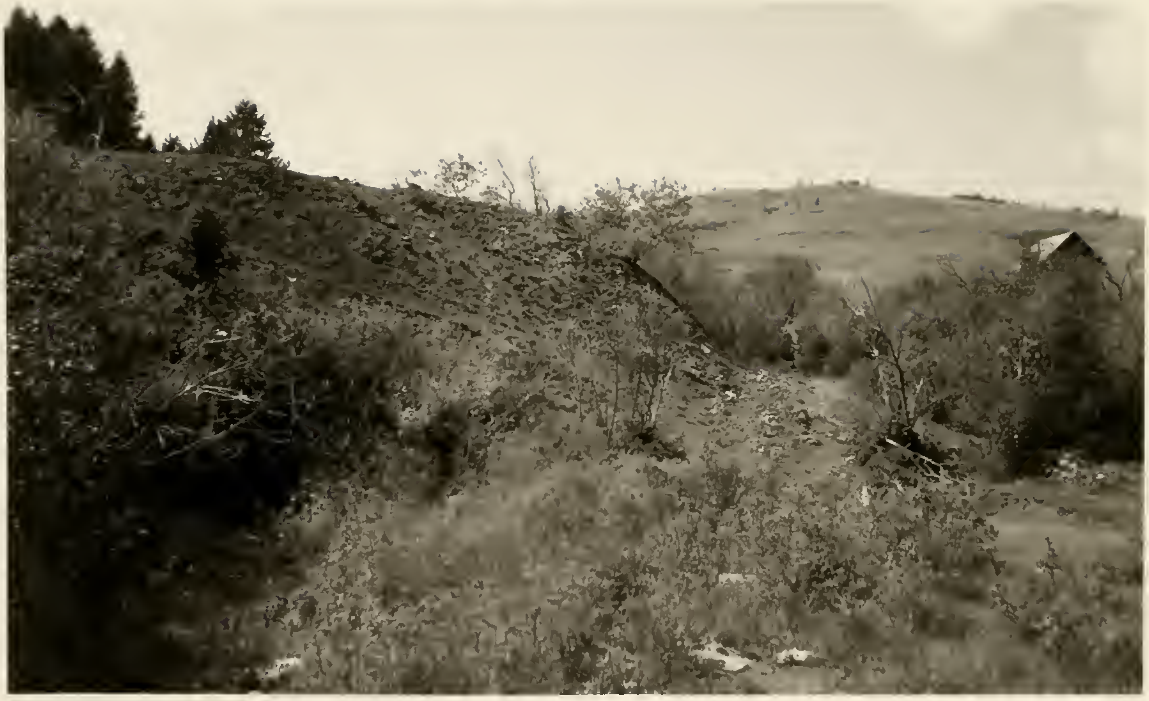
The Buckskin mine represented the western most edge of the Cokedale District. The Buckskin, developed by Joseph McKeown in 1888, produced only small amounts of coal for domestic use in Livingston. In 1889 McKeown sold the Buckskin to the Livingston Coal and Coke Company, the owners and developers of the Cokedale mines and coke ovens between 1888 and 1898 (Roberts 1966).

5.5 References
(See Section 3.9)

5.6 Subsurface testing, results, methods, etc.

None


BUCKSKIN MINE
ELDRIDGE CREEK
5550
2 COAL SLACK PILES - SIDE OF MOUNTAIN
5575
F-1
N
5600
5575
F-2
5625
5600
5650
5625
5675
METAL DEBRIS
F-3
5650
F-4
F-5
5675
F-6
F-7
TRAIL
5720
5700
80ft.



Coal slack pile at the Buckskin Mine. View to the west.

## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 1 Locational Information

| | | |
|---|---|---|
| 1.1 Site number:<br>24PA784 | 1.2 Site name/field designation:<br>Number 30 Mine (Upper and Lower Sites) | 1.3 County:<br>Park |

1.4 Township/range:
T 2S R 8E NE 1/4 SW 1/4 1/4 of Section 30

1.5 UTM:
Zone 12 516 550 Easting 5053 150 Northing

| | |
|---|---|
| 1.6 Site type:<br>historic coal mine | 1.7 Recording status & comments:<br>photographed, mapped and recorded |

1.8 Administrative/surface ownership:

Dave Johnson
75777 Gallatin Road
Bozeman, MT 59715

1.9 Mineral ownership:
Dave Johnson

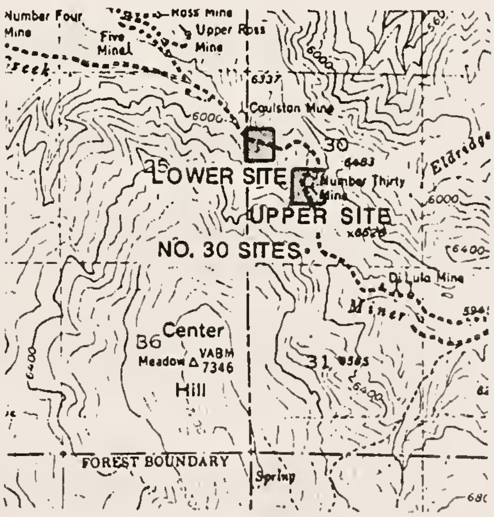
1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

1.11 General narrative description of site:
The Upper site is located on a hillside along the ridgetop above Timberline Creek. The Upper No. 30 mine site is identified by two small depressions and a pile of flat rocks at the adit entrance. The Lower site, located in a grove of aspen and fir down the hillside from the Upper site, can be identified by several excavated pits and slack piles. The surrounding countryside is punctuated by logged off hillsides and the abandoned underground coal mines of the Timberline district.

1.12 Map reference:
Bozeman Pass, Mont. 1:62500 1951

1.13 City/town: ☒ vicinity of
Livingston, MT

1.14 Access to site:
Proceed east on I-90 from Bozeman 10 miles to the Jackson Creek exit. Turn right & proceed south across the railroad tracks, following Timberline Creek road for approximately 4 miles to a divide separating the Timberline Creek drainage from the Miner Creek drainage. At the gated fence at the top make a hard left and follow an unimproved road along the ridge approximately .3 mile. Look for flat rocks piled at the adit entrance about 25 ft above the road to the right (Upper site). The Lower site is located down the gully on the left approximately 500 ft from the Upper site.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA784

2.1 Geographic setting:

2.2 Elevation: 1865-1954 m 6120-6410 ft.

These historic coal mines are located just below the top of fir and pine-covered foothills of the southern most part of the Bridger Range. The site is located on a grass/fir-covered hillside at the head of Timberline Creek. To the north the highest points in the Bridger Range can be seen. The town of Livingston lies approximately 13 miles east/northeast of the No. 30 Mines.

2.3 View/aspect:

west/northwest

2.4 Major drainage:
Timberline Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Timberline Creek | 500 ft-1000 ft | 100 ft | perennial |
| b. | | | | |

2.7 Regional vegetation:
lodgepole pine-Douglas fir forest (Payne 1973)

2.8 Local vegetation:

lodgepole pine, Douglas fir, grouse whortleberry, pine reedgrass, sagebrush, grasses

2.9 Soils:
loamy to sandy and gravelly

2.10 Surface visibility/season of survey:
50%/fall

2.11 Other environmental factors pertaining to site location:
The site is located in the Timberline District of the Livingston Coal Field.

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA784

3.1 Condition of site:
Little remains of these historic underground coal mines. All that can be seen today are adit depressions and several large coal slack piles.

3.2 Site significance (NRHP):
Although these underground mines were originally part of a group operated by the Northern Pacific Railroad during the late 1800s, the volume of coal was never significant and the duration of activity was short-lived. Because of these factors and the absence of historic structures on the site at present, the site does not qualify for inclusion on the National Register of Historic Places.

☐ Attachments:

3.3 Impacts:
The proposed reclamation of the Upper and Lower sites will not have a negative impact on existing cultural resources.

3.4 Recommendations:
The sites have been photographed, mapped and recorded and no further work is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Brian Shovers, Jim Duran and Tom Jerde<br>Date: Sept., Oct., 1987 | 3.6 Site recorded by:<br>Brian Shovers, Jim Duran and Tom Jerde<br>Date: Sept., Oct., 1987 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

Payne, Gene F. 1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E. 1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Shovers, Brian 1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>none collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

Description View

1987 No. 30 proofs
Roll No. 5 - 17-22
Roll No. 6 - 6-14

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA784

---

5.1 Site dimensions, how determined:

Upper - 100 x 100 ft
Lower - 400 x 200 ft

Upper - 3048 $m^2$
Lower - 24,384 $m^2$

---

5.2 Features:

Lower Site
Feature 1 - collapsed adit with depression and subsidence pit south of this
Feature 2 - coal slack pile
Feature 3 - coal slack pile
Feature 4 - coal slack pile
Feature 5 - larger coal slack pile
Upper Site
Feature 1 - coal slack pile
Feature 2 - two depressions and collapsed adit with piled sandstone at entry
Feature 3 - large subsidence with four smaller subsidence pits

---

5.3 Artifacts (observed, collected):
None observed.

---

5.4 Historical information and evaluation:
In 1885 Lewis Hyer acquired a patent on 120 acres of land in the area of the No. 30 Mine site (Bureau of Mines Patent #195). Named for its legal location in Section 30, this mine was first worked by the Northern Pacific Coal Company sometime between 1880 and 1900 (the exact date of its initial operaton is unknown). During the mine's initial operation, miners tunneled a drift some 500 ft southeast along the strike of the Cokedale coal bed. The No. 30 operated during the same era as the other Timberline mines operated by the Northern Pacific Railroad producing coal for the company's steam locomotives (Roberts 1966).

Frank Woodland and Ray Ross reopened the No. 30 in 1932 by sinking three shafts along the line of the original drift. The new mine owners directed the driving of a second drift 25 ft below the original. Two years later the No. 30 closed for the final time, but not before the miners advanced the new drift 600 ft. Although the coal bed was thick the product's composition required washing prior to use, an added cost not justified in this case (Roberts 1966).

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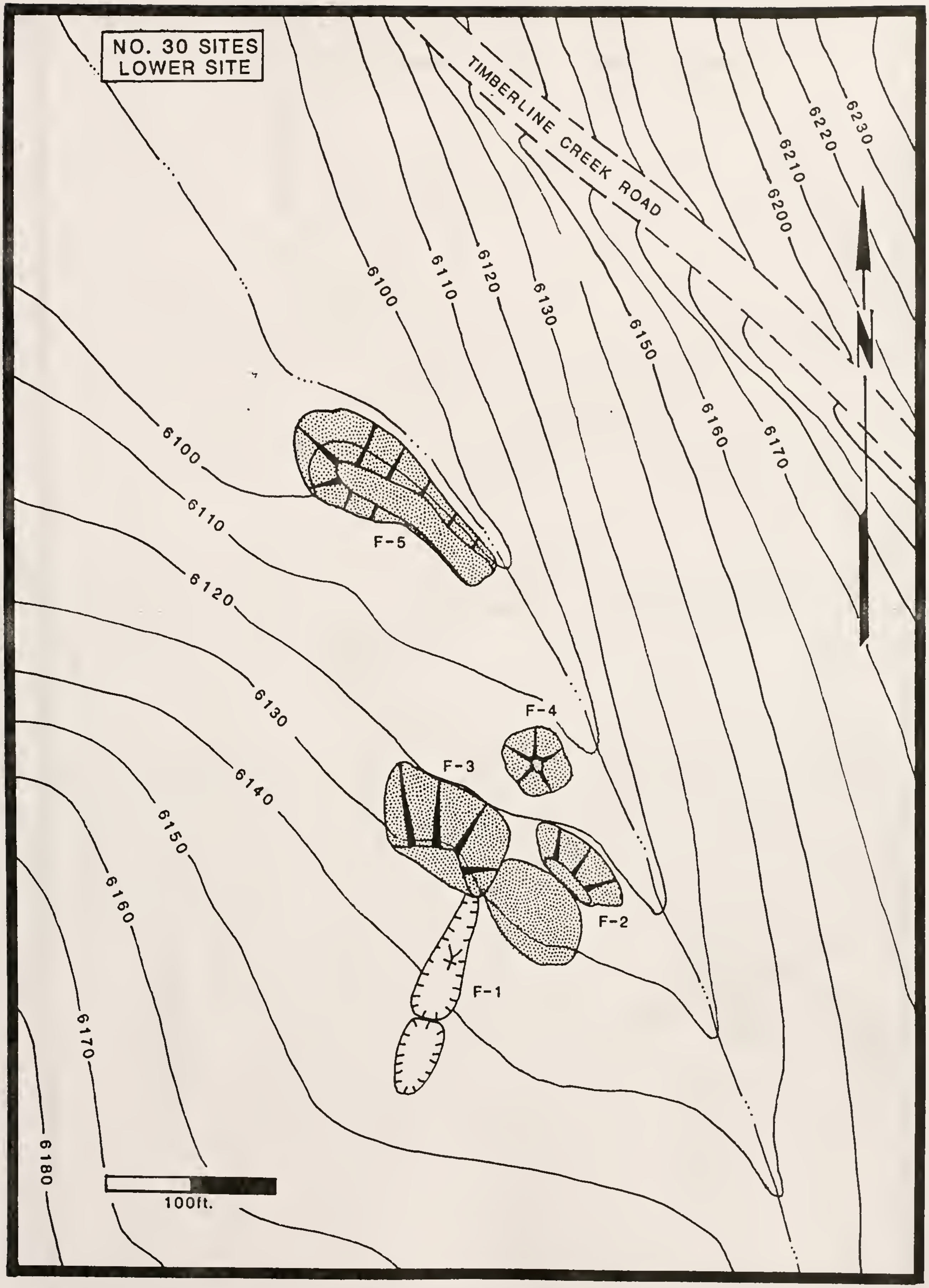
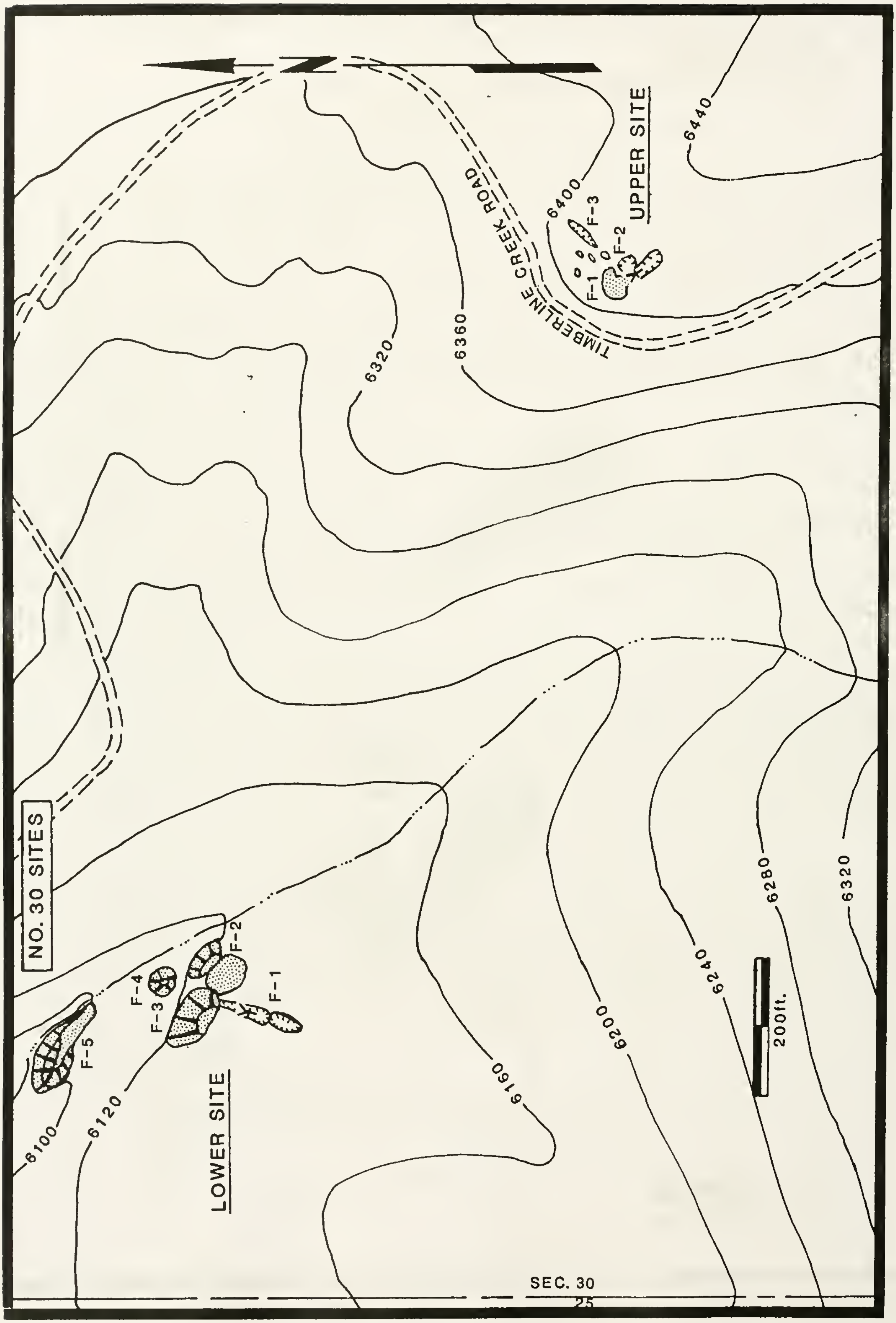
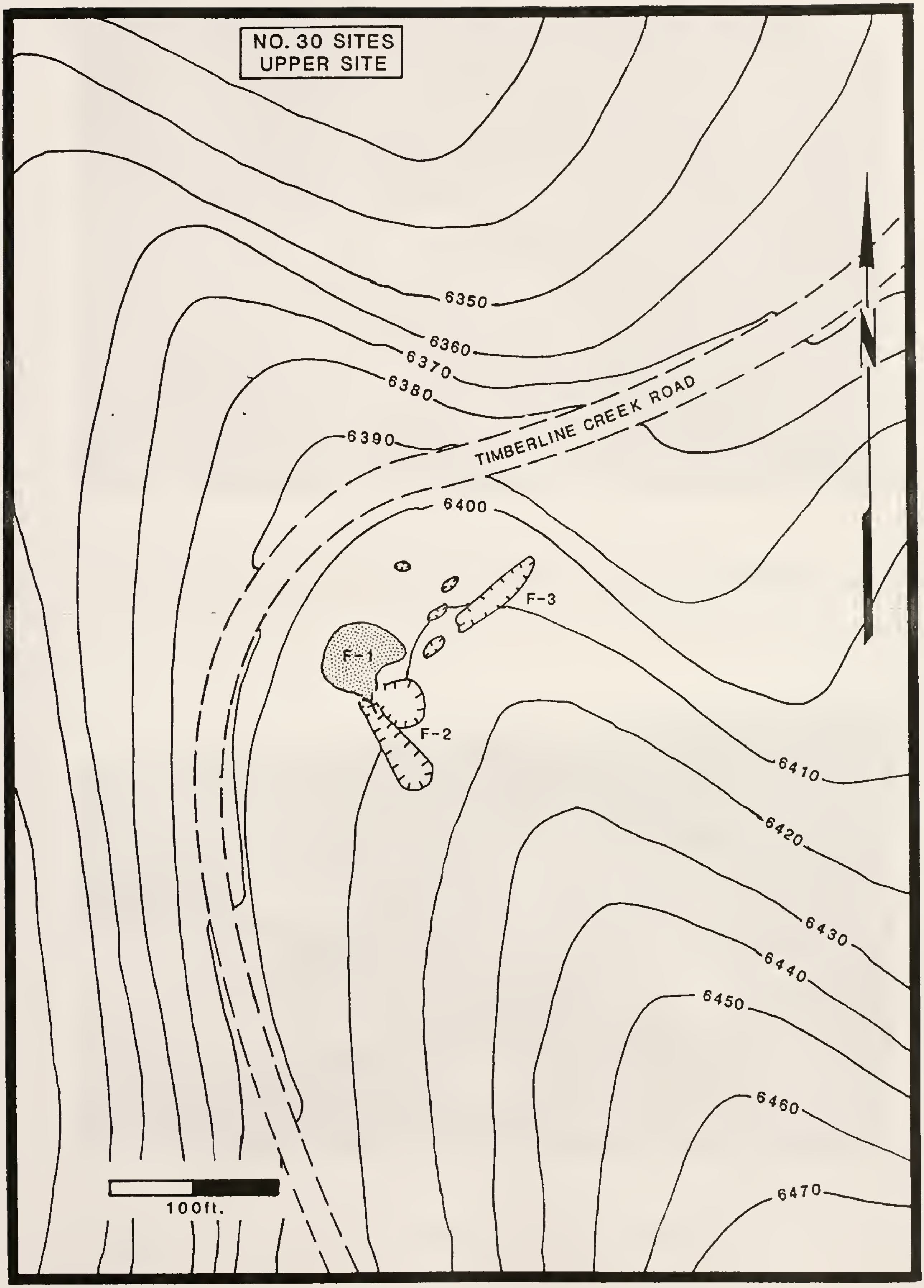
5.5 References
(See Section 3.9)

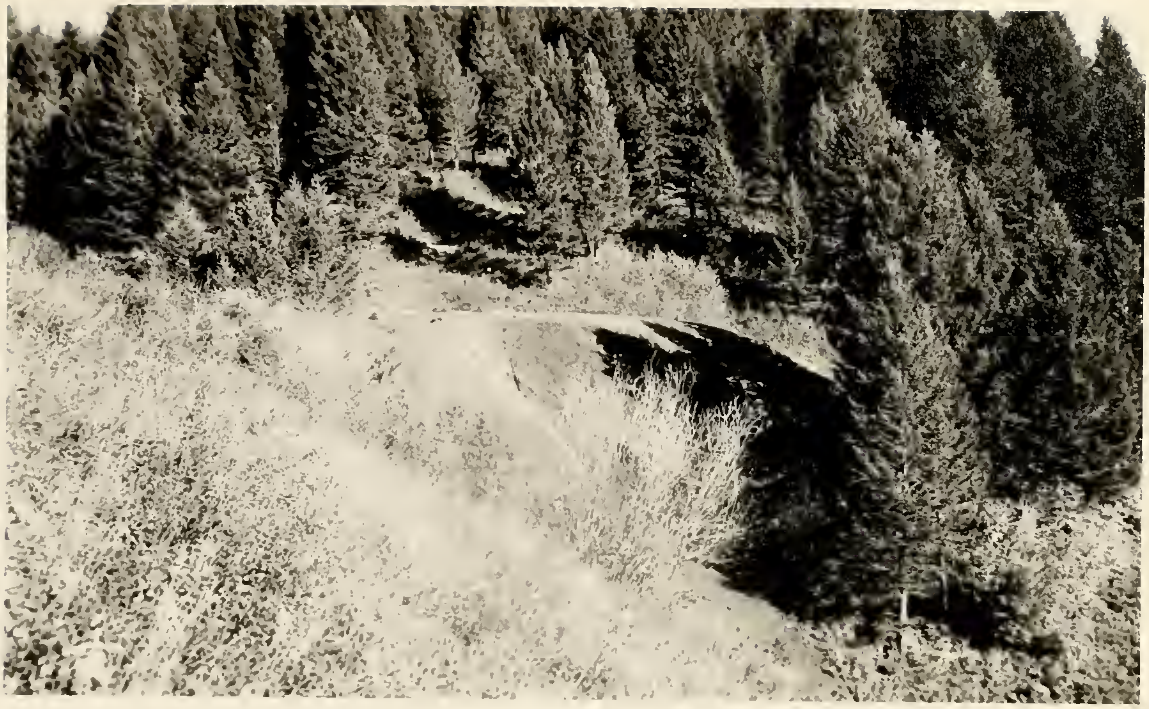
---

5.6 Subsurface testing, results, methods, etc.
None

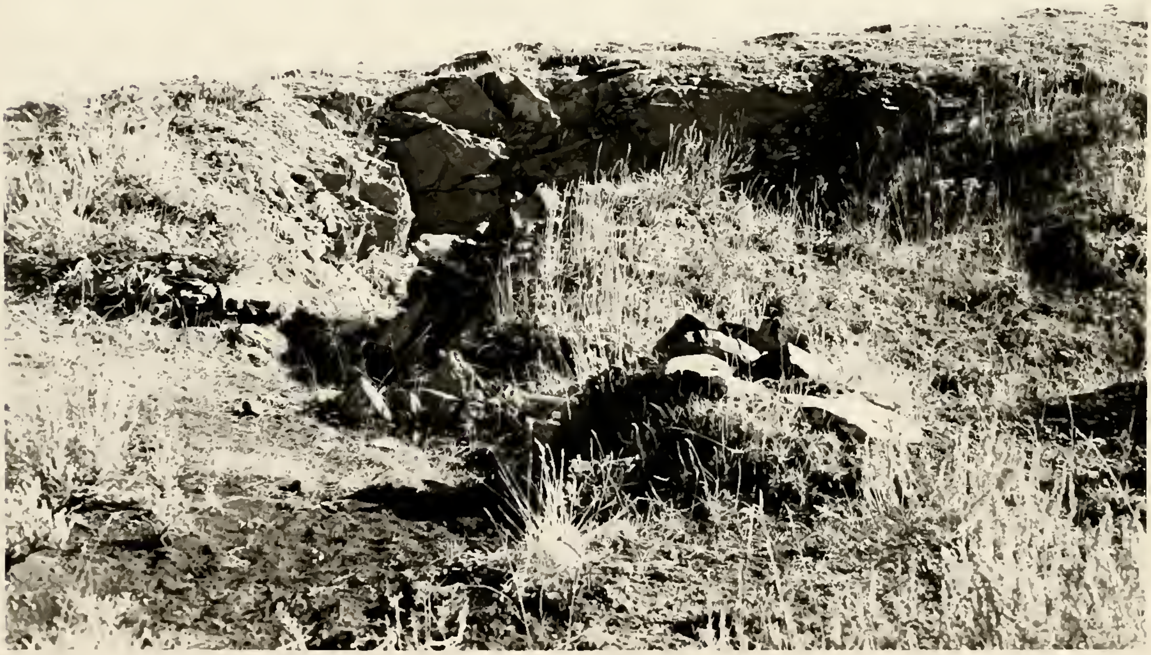

NO. 30 SITES
LOWER SITE
TIMBERLINE CREEK ROAD
6230
6220
6210
6200
6100
6110
6120
6130
6150
6160
6170
N
6100
6110
6120
F-5
6130
F-4
F-3
6140
6150
6160
F-2
F-1
6170
6180
100ft.


NO. 30 SITES
N
UPPER SITE
F-1
F-2
F-3
TIMBERLINE CREEK ROAD
LOWER SITE
F-1
F-2
F-3
F-4
F-5
6100
6120
6160
6200
6240
6280
6320
6320
6360
6400
6440
200ft.
SEC. 30
25


NO. 30 SITES
UPPER SITE
6350
6360
6370
6380
6390
6400
TIMBERLINE CREEK ROAD
F-1
F-2
F-3
6410
6420
6430
6440
6450
6460
6470
N
100ft.



Coal slack pile at the No. 30 Lower Site. View to the southeast.



Adit entrance at the No. 30 Upper Site. View to the east.

## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 1 Locational Information

1.1 Site number: 24PA785

1.2 Site name/field designation: Dilulo East and West

1.3 County: Park

1.4 Township/range:

| | | | | | |
|---|---|---|---|---|---|
| West | T2 S | R 8E | NE 1/4 | NE 1/4 | of Section 31 |
| East | T2S | R 8E | NE 1/4 | NW 1/4 | of Section 32 |

1.5 UTM:

| | | | | |
|---|---|---|---|---|
| East Zone | 518 300 | | 5052 255 | |
| West Zone 12 | 517 275 | Easting | 5052 255 | Northing |

1.6 Site type: historic coal mine

1.7 Recording status & comments: photographed, mapped and recorded

1.8 Administrative/surface ownership:

Sharon Cochran and Eleanor Fondren
P. O. Box 671
Livingston, MT 59047

1.9 Mineral ownership: Cochran and Fondren

1.10 Project name: Department of State Lands Abandoned Mine Reclamation Program

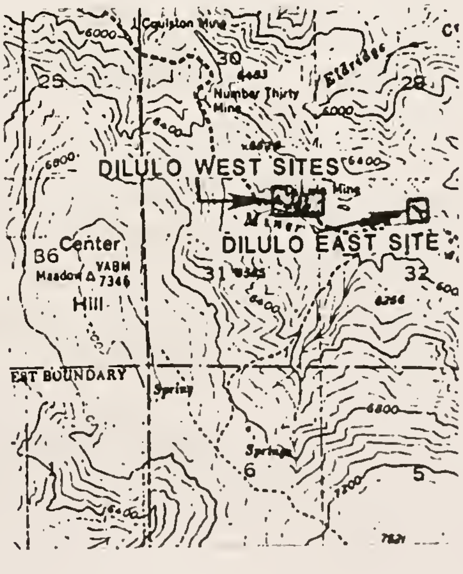
1.11 General narrative description of site:
The site contains several abandoned late nineteenth century underground coal mines located approximately 13 miles east of Bozeman. Little evidence of the historic mining operation remains at the Dilulo East Mines, with the exception of slack piles and collapsed adits. At the Dilulo West Mine there are the remains of a wooden loadout chute, wooden flume and a log dwelling, along with a large slack pile and several collapsed adits. Both these sites located 1/2 mile apart, are surrounded by steep sparsely timbered hillsides currently used for grazing.

1.12 Map reference:
Bozeman Pass, Mont. 1:62500 1951

1.13 City/town: ☒ vicinity of
Livingston, Mont.

1.14 Access to site:

Drive east on Interstate 90 for approximately 7.5 miles taking the Trail Creek exit, proceed another 2 miles on the frontage road looking for Timberline Creek Road. Cross the railraod tracks and proceed through a gate heading south on Timberline Creek Road. Follow this unpaved road for approximately 4 miles, climbing to a gate at the top of the divide. Proceed through the gate and descend another 1/2 mile to the Dilulo West site. The Dilulo East site is another 1/2 mile east on the same road.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA785

2.1 Geographic setting:

2.2 Elevation: 1926 m 6320 ft.

The sites are located at the upper end of Miner Creek (north side) on a steep sparsely timbered hillside just below the Timberline Creek/Miner Creek divide. The sites are almost three miles south of Bozeman Pass. The sites are located in the foothills just southeast of the Bridger Range and northeast of the Gallatin Range.

2.3 View/aspect:
open to the south

2.4 Major drainage:

Miner Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Miner Creek | 300 ft | 320 ft | year around |
| b. | | | | |

2.7 Regional vegetation:
lodgepole pine-Douglas fir forest (Payne 1973)

2.8 Local vegetation:
lodgepole pine, Douglas fir, aspen, alder, rose spiraea, wheatgrasses

2.9 Soils:
loamy to sandy and gravelly

2.10 Surface visibility/season of survey:
50%/fall

2.11 Other environmental factors pertaining to site location:
The sites are located with the Cokedale District of the Livingston Coal Field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA785

3.1 Condition of site:
At the West site all that remains of the historic coal mining operation are the ruins of a wooden loadout chute and a log dwelling along with scattered slack piles and collapsed adits. On the East site no structures remain and all that can be seen are several slack piles and a collapsed adit.

3.2 Site significance (NRHP):
Although this site is part of the Cokedale District, mining activity here occurred after the peak period of production at Cokedale. Since production here was later (1930s) and limited to domestic sale in nearby Livingston, and because historic structures have long since been removed from this site, the site does not qualify for inclusion to the National Register of Historic Places.

3.3 Impacts:
The reclamation plan recommends using slack to backfill depressions and revegetating at the East site which will not impact cultural resources. At the West site the plan recommends destroying the log dwelling which would have a negative impact on future interpretation of this historic coal mining site.

3.4 Recommendations:
The site has been photographed, mapped and recorded. Avoiding the demolition of the log dwelling at the west end of the West site is recommended because of the potential information it could supply concerning life at a remote underground coal mine.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde, Jim Duran,<br>Brian Shovers<br>Date: 9/87 | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran,<br>Brian Shovers<br>Date: 9/87 | 3.7 Revisions by:<br><br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:
BLM Patent Records, Billings, Montana.
Payne, Gene F. 1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.
Roberts, Albert E. 1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.
Shovers, Brian 1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| | | |
|---|---|---|
| No. 4 - #23-36 | Description | View |
| 1987 - Dilulo proofs | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number:

5.1 Site dimensions, how determined:
West - 200 x 600 ft
East - 200 x 200 ft

West - 36,576
East - 12,192 $m^2$

5.2 Features:

East Site
Feature 1 - coal slack dump with wood debris and remains of a wooden loadout chute
Feature 2 - collapsed adit with stone retaining walls - partially collapsed with two depressions
Feature 3 - subsidence pit

West 2 Site
Feature 1 - coal loadout chute 16 x 40 ft wood debris at end of chute just off road, natural stone wall to the west
Feature 2 - coal slack dump. Dump on which Feature 1 sits.
Feature 3 - collapsed adit with depression

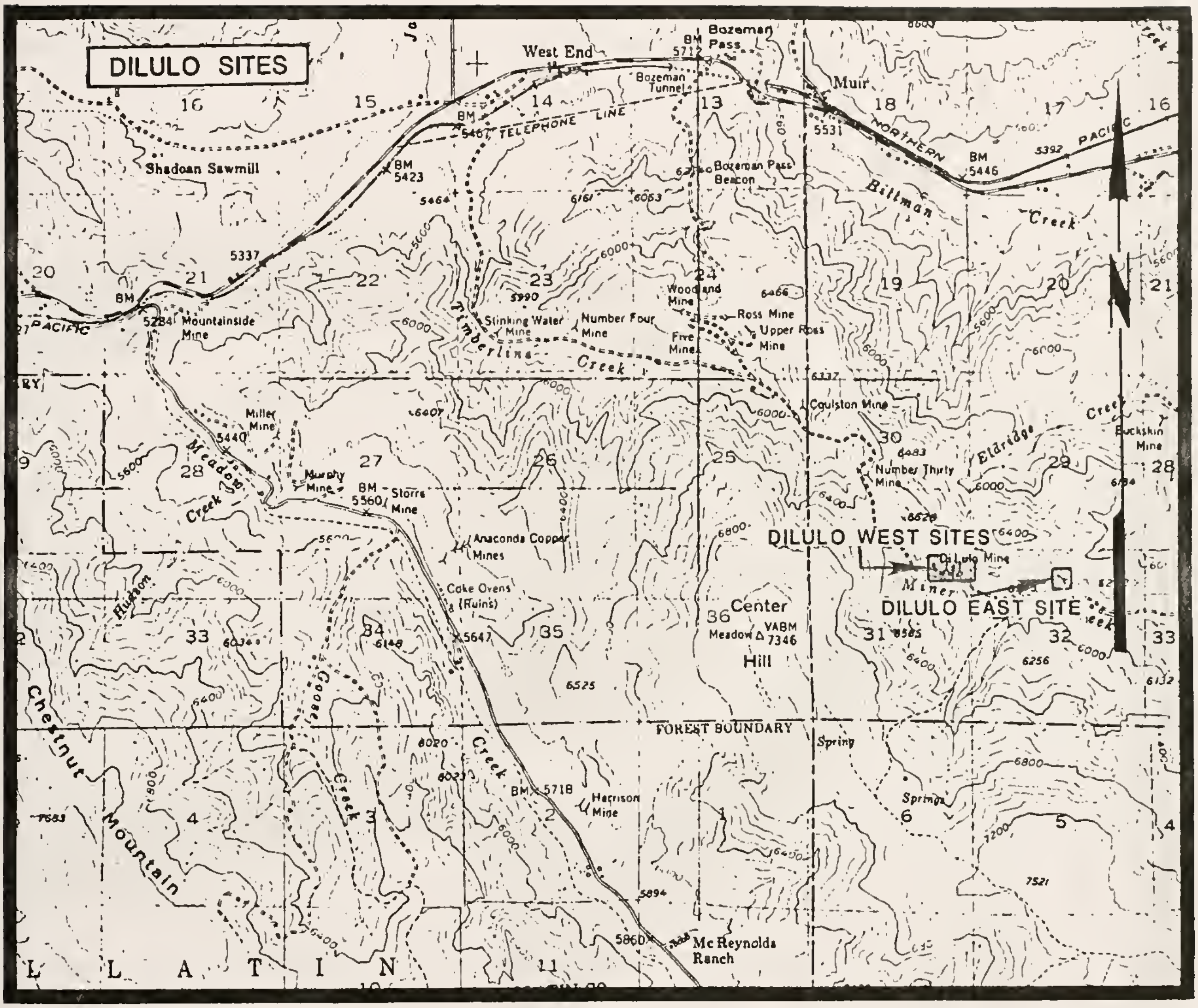
West 1 Site
Feature 4 - large coal slack dump with collapsed flume at the east side
Feature 5 - collapsed adit with depression, wood debris located at adit entrance along with rail to convey coal car
Feature 6 - shed roof structure - board roof, board siding round nail construction measuring 13 x 16 ft
Feature 7 - collapsed flume and wood debris
Feature 8 - log cabin with gable roof, center ridge brick chimney with wood shake roofing, log rafters, saddle-notching and mortar chinking - collapsed root cellar located east of this. The cabin is down the road from West 1 site and above the access road.
Feature 9 - collapsed wood structure, 26 x 20 ft.
Feature 10 - collapsed frame and log wall, possibly part of Feature 9.

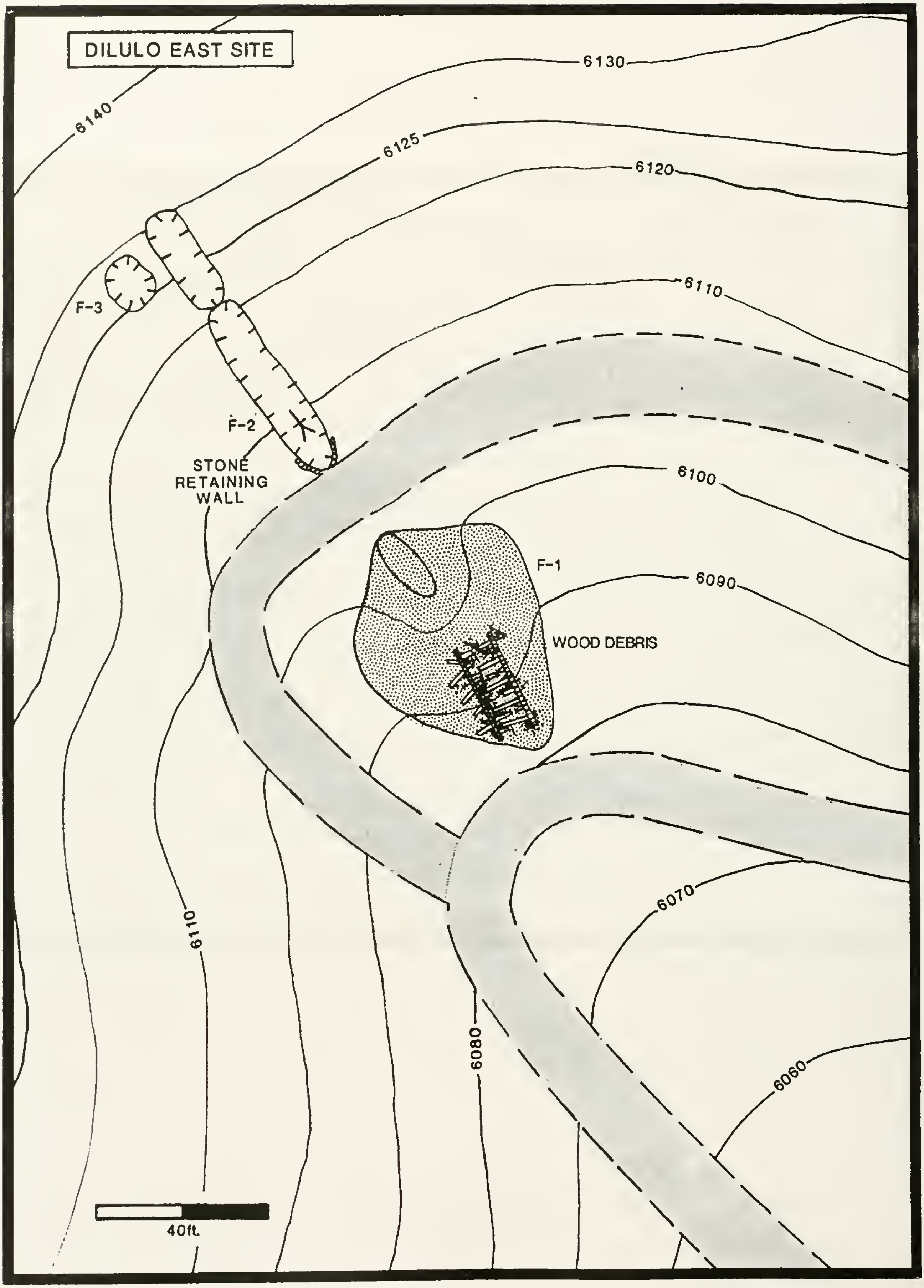
5.3 Artifacts (observed, collected): None observed.

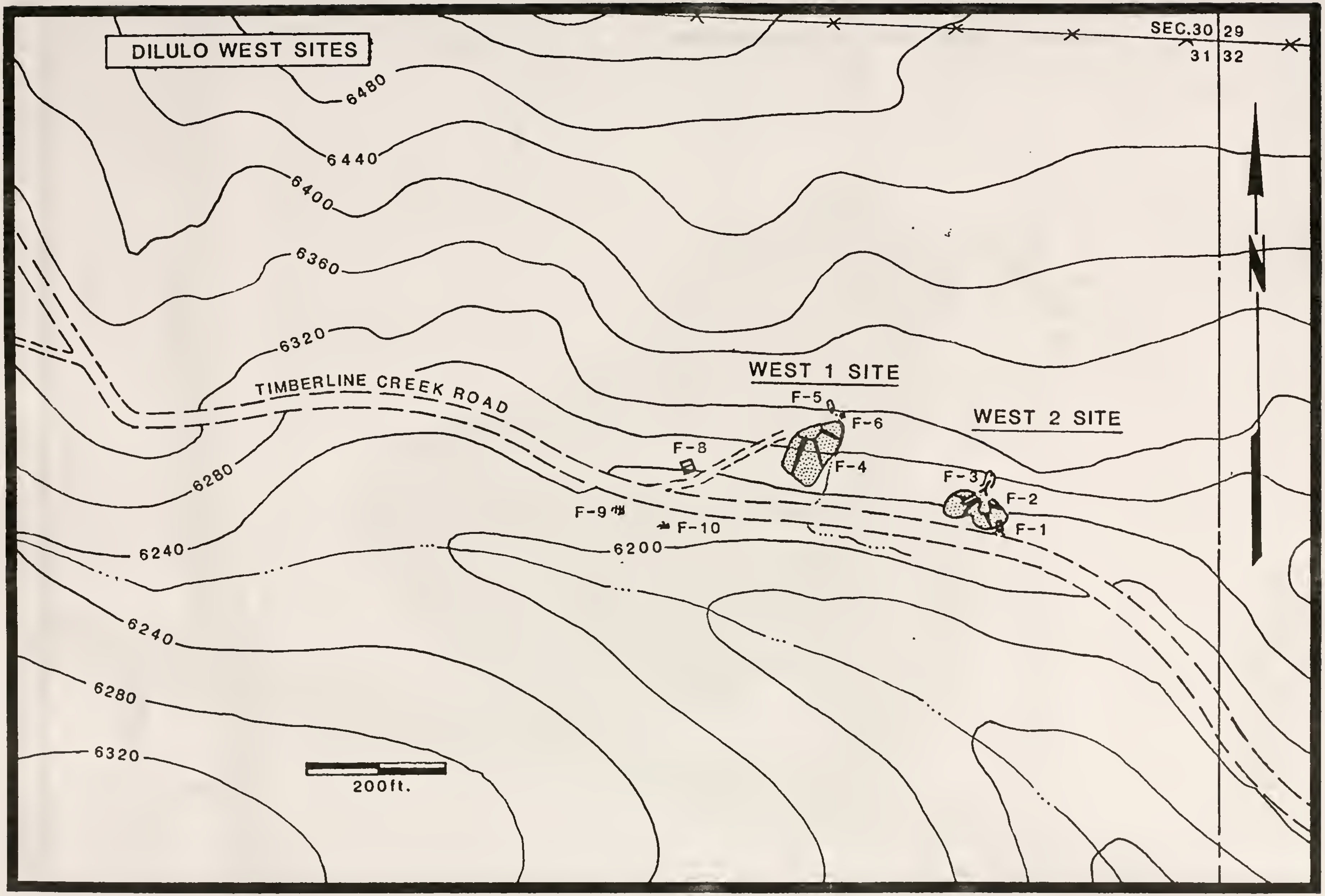
5.4 Historical information and evaluation:
The land on which the site is located was patented in May of 1890 by Elizabeth B. Hoffman, #707 for 120 acres above Miner Creek and that same year the Northern Pacific Railroad received Patent #8 on 622 acres of land just west of Hoffman (BLM Government Land Office Records; Roberts 1966). In 1933 Mike Dilulo opened a horizontal drift on the Cokedale bed above the upper end of Miner Creek. Dilulo and his crew tunneled 40 ft north along the strike of the bed using a room and pillar system. The Dilulo mines produced small quantities of coking quality coal. Operations shut down in 1937.

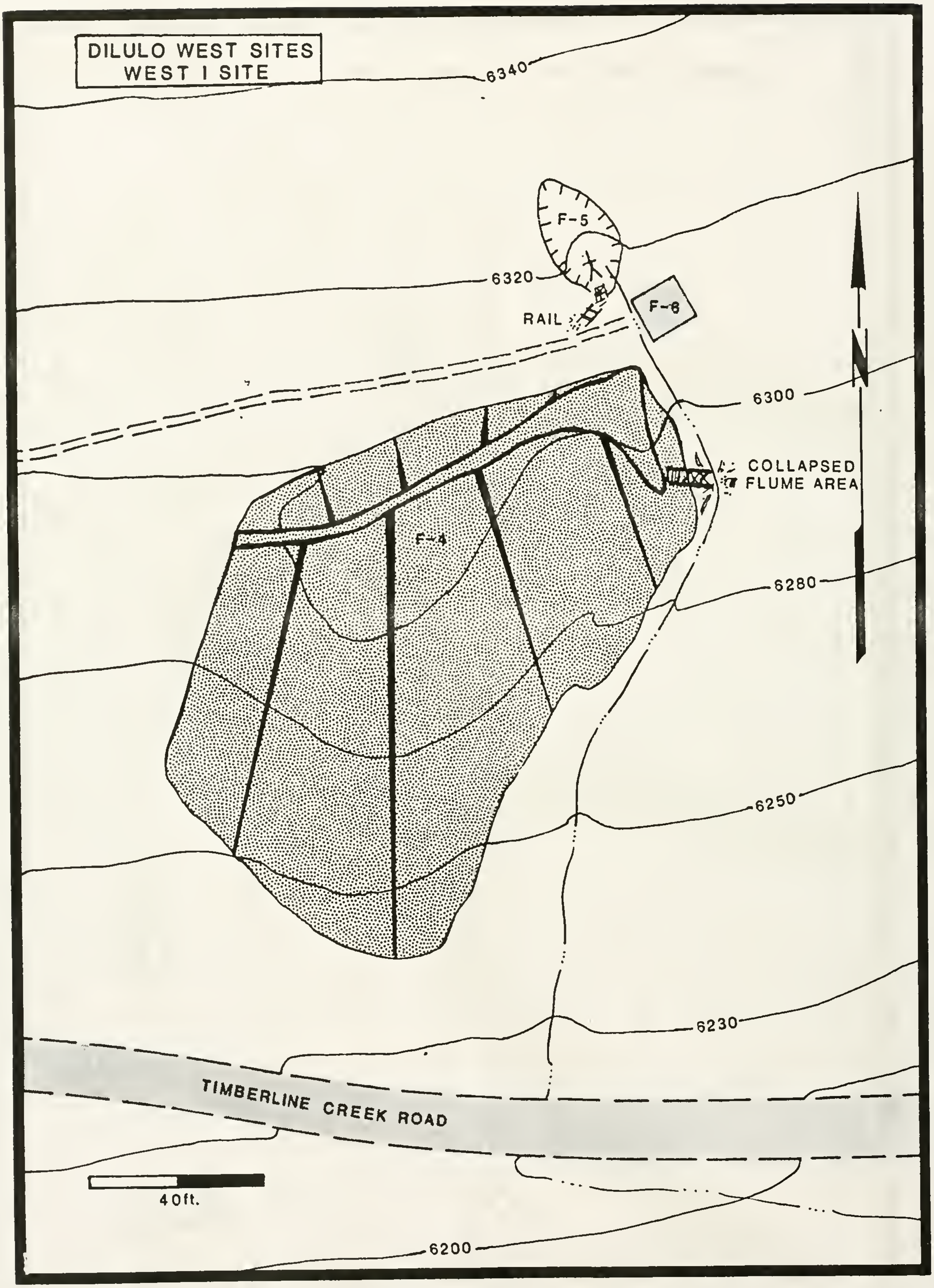
5.5 References: (See Section 3.9)
Kezer, Lillian 1987 Personal interview, October 6, Cokedale, MT.

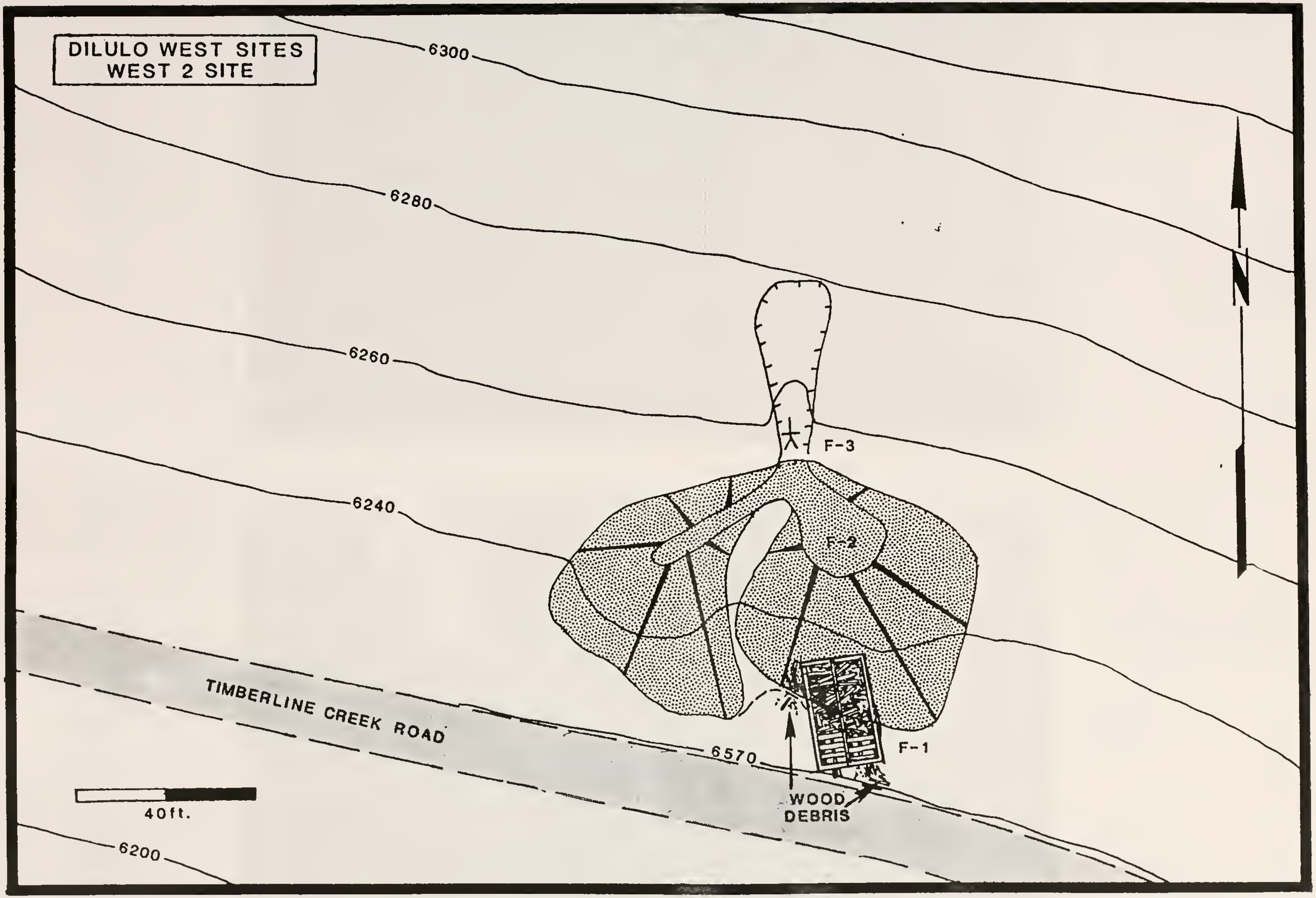
5.6 Subsurface testing, results, methods, etc.
None


DILULO SITES
West End
Bozeman Pass
Bozeman Tunnel
Muir
Northern Pacific
Telephone Line
Shadoan Sawmill
Bozeman Pass Beacon
Billman Creek
Mountainside Mine
Timberline Creek
Stinking Water Mine
Number Four Mine
Woodland Mine
Five Mine
Ross Mine
Upper Ross Mine
Coulston Mine
Number Thirty Mine
Eldridge Creek
Buckskin Mine
Miller Mine
Meadow Creek
Murphy Mine
Storrs Mine
Anaconda Copper Mines
Coke Ovens (Ruins)
DILULO WEST SITES
DiLulo Mine
Miner Creek
DILULO EAST SITE
Center Meadow Hill
VABM 7346
Hudson
Chestnut Mountain
Goose Creek
Forest Boundary
Spring
Harrison Mine
McReynolds Ranch
GALLATIN


DILULO EAST SITE
6140
6130
6125
6120
6110
F-3
F-2
STONE RETAINING WALL
6100
F-1
6090
WOOD DEBRIS
6110
6080
6070
6060
40ft.


DILULO WEST SITES
SEC.30
29
31
32
N
6480
6440
6400
6360
6320
6280
6240
6200
6240
6280
6320
TIMBERLINE CREEK ROAD
WEST 1 SITE
WEST 2 SITE
F-1
F-2
F-3
F-4
F-5
F-6
F-8
F-9
F-10
200ft.


DILULO WEST SITES
WEST I SITE
6340
F-5
6320
F-6
RAIL
6300
COLLAPSED
FLUME AREA
F-4
6280
N
6250
6230
TIMBERLINE CREEK ROAD
40ft.
6200


DILULO WEST SITES
WEST 2 SITE
6300
6280
6260
6240
6200
6570
N
F-3
F-2
F-1
WOOD
DEBRIS
TIMBERLINE CREEK ROAD
40ft.

Adit entrance at Dilulo East.
View to the east.

Coal bunker at Dilulo West 2
Site. View to the north.

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 1 Locational Information

| | | |
|---|---|---|
| 1.1 Site number:<br>24PA786 | 1.2 Site name/field designation:<br>Maxey Mine North (Upper and Lower) | 1.3 County:<br>Park |

1.4 Township/range:

T 3S R 8E SE 1/4 NE 1/4 of Section 28

1.5 UTM:

Zone 12 520 440 Easting 5043 680 740 Northing

| | |
|---|---|
| 1.6 Site type:<br>historic coal mine | 1.7 Recording status & comments:<br>photographed, mapped and recorded |

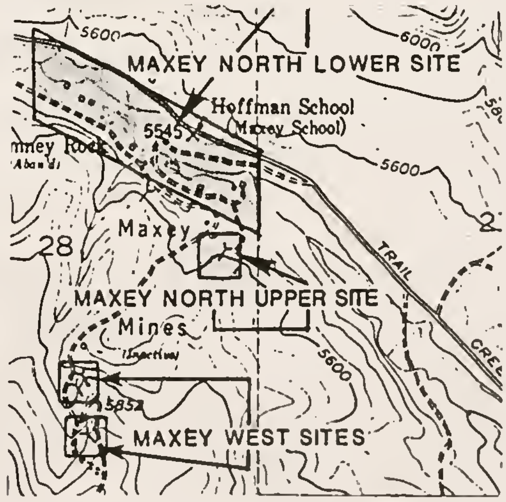
| | |
|---|---|
| 1.8 Administrative/surface ownership:<br>Emigrant Ranch<br>c/o Richard Kinkie<br>Rt. 1, Box 516<br>Pray, MT 59065 | 1.9 Mineral ownership:<br>Richard Kinkie<br><br>1.10 Project name:<br>Department of State Lands Abandoned Mine Reclamation Program |

1.11 General narrative description of site:
The Maxey North mines are located on a fir-covered hillside and along the creek bottom in the Trail Creek District of the Livingston Coal Field. These historic abandoned coal mines lie within a rather narrow mountain valley in the southern part of the Bridger Range, some 12 miles northwest of the Yellowstone River. The Lower site contains a number of log structures, a rather large log and shingled house, the ruins of two field stone structures, and scattered slack piles and subsidence pits. At the Upper site there are several slack piles, a number of subsidence pits and several collapsed adits. The Maxey family operated these mines to provide coal for domestic use in Bozeman from 1881 until 1931 when these mines were abandoned for the final time.

1.12 Map reference:
Chimney Rock, Mont. 1:24000 1951

1.13 City/town: ☒ vicinity of
Livingston, MT

1.14 Access to site:
Proceed east on I-90 from Bozeman approximately 6 miles. Exit on Trail Creek road and drive south approximately 10 miles and turn right at a road with a closed gate. There is a rather large 1-1/2 story log and wood shingled house on a knoll above the creek. A road proceeds south from the house and on up the hill through the lower site and on up to Maxey West.



## MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 2. Environmental Setting

Site number: 24PA786

2.1 Geographic setting:

2.2 Elevation: 1695 m 5560 ft.

The Maxey North Mine is lcoated on a hillside just above Trail Creek approximately 12 miles northwest of the Yellowstone River. The hillside is covered with grasses, low-lying bushes and scattered clumps of Douglas fir. Trail Creek flows through a rather narrow mountain valley at the southern end of the Bridger Range and approximately 15 miles west of the Absaroka Range.

2.3 View/aspect:
northeast

2.4 Major drainage:
Trail Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 350 ft | 160 ft | perennial |
| b. | | | | |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:

willow, aspen, alder, Douglas fir, grasses, roses, snowbush

2.9 Soils:
sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:
50%/fall

2.11 Other environmental factors pertaining to site location:
The site is located within the Trail Creek District of the Livingston Coal Field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA786

3.1 Condition of site:
Although most of the major mining structures and many of the dozens of miner's houses that once stood have been demolished, the site contains a number of log houses, the remains of several stone structures and numerous foundations and collapsed structures which still evoke the mining activity that took place here between 1881 and 1930.

3.2 Site significance (NRHP):
The site was the location of a number of early Park County underground coal mines operated first by Daniel Maxey and then by his four sons, beginning in 1881 and ending in 1931. Although most of the industrial and residential structures have disappeared over the years, the remaining structures still evoke a feeling of an earlier time of mining activity and the site's association with the Maxey family, make the site eligible for inclusion on the National Register of Historic Places under Criterion A. Two prehistoric sites referred to as the Maxey Corral and Maxey Cellar sites have potential to yield information about early life in this valley with further testing.

3.3 Impacts:
The reclamation plan calling for the demolition of two stone structures and the disposal of all wood debris would generally have an adverse impact on remaining cultural resources at this site and their future interpretation.

3.4 Recommendations:
The site has been photographed, mapped and recorded. Before reclamation disturbs any of the relevant features more thorough photo documentation of the site with a large format (4 x 5) camera and more complete mapping with the assistance of local informants is recommended. In addition, further testing should be conducted on the two identified prehistoric sites if they are to be disturbed.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Brian Shovers, Tom Jerde, Jim Duran<br>Date: 9/87 | 3.6 Site recorded by:<br>Brian Shovers, Tom Jerde, Jim Duran<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:
See attached.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:
1987 Maxey Proofs

| | | |
|---|---|---|
| No. 1 - 17-25 | Description | View |
| No. 2 - 1-33 | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA786

5.1 Site dimensions, how determined:
800 x 1300 ft

316,992 $m^2$

5.2 Features:
See attached.

5.3 Artifacts (observed, collected):
Observed several wrecked automobiles, one piece of farm machinery and an oil furnace tank.

5.4 Historical information and evaluation:

See attached.

5.5 References
(See Section 3.9)

5.6 Subsurface testing, results, methods, etc.

None

## 3.9 Publications concerning site: (continued)

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Rowe, J. P.
1905 The Montana Coal Fields: Their Commercial Value, Mining Magazine. March.

Shovers, Brian
1987 A Cultural Resource Inventory and Evaluation of Selected Abandoned Coal Mines in Park County - Part 2. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.

## 5.2 Features (continued)

### Maxey North Lower Site

Feature 1 - concrete and stone structure with log rafters measuring 23 x 13 ft. No roof. A log barricade is located off the road and next to the creek running along this structure.
Feature 2 - coal slack scatter located at end of road across the creek and northwest of Feature 1.
Feature 3 - gable roof corrugated metal structure with wood frame construction. Round nails in use - 6 x 10 ft. A 1960s Chevy Impala custom, one piece of farm machinery and a furnace tank are located next to this.
Feature 4 - "Maxey House": this 1-1/2 story, rectangular saddle-notched log cabin with asphalt shingle gable roof has a stone foundation. There is a center ridge brick chimney and three hipped roof dormers with shutters at the double-hung windows; one centrally located at the front facade and two side by side at the rear. The west facade has stucco veneer up to the gabled end with wood shingles at both gable ends. Other features include partially returned eaves, an open front porch, shed roof addition at the rear entrance with novelty siding. The east facade has a hipped roof oriel window with shutters and wood shingle siding. Approximate date of construction, 1890 - 1903.
Feature 5 - collapsed adit with depression
Feature 6 - stone wall - building remains, irregularly shaped, has window openings, stone and mortar construction. Maxey Mine boiler house.
Feature 7 - collapsed adit cut in side of hill off road.
Feature 8 - collapsed one seat outhouse - wood construction, 5 x 5 ft
Feature 9 - stone foundation measuring 11 x 23 ft
Feature 10- stone foundation measuring 10 x 23 ft
Feature 11- stone foundation, measuring 10 x 20 ft, at one side with wood debris
Feature 12- depression with rocks, car and metal debris, measuring 10 x 15 ft
Feature 13- collapsed structure, measuring 6 x 12 ft - wood and metal debris
Feature 14- collapsed structure measuring 3 x 8 ft
Feature 15- stone foundation measuring 13 x 26 ft
Feature 16- gable roofed log cabin, mortar chinking, wood shake over board roofing measuring 16 x 16 ft.
Feature 17- gable roofed log cabin measuring 16 x 16 ft. Square notching, mortar chinking, log rafters, roof is collapsed, round nail construction
Feature 18- gable roofed log cabin has new door; must have been lived in recently. Square notching, particle board roofing, mortar chinking, log rafters. Wood debris at west facade along with fencing, rubber hose, saw horses and garbage can.
Feature 19- two-seat outhouse measuring 3 x 5 ft, gable roof, novelty siding, round nail construction
Feature 20- saddle-notched log cabin measuring 13 x 20 ft with collapsed roof,
Feature 21- wood and metal debris - collapsed structure measuring 3 x 5 ft
Feature 22- small collapsed wood structure measuring 1.5 x 3 ft
Feature 23- collapsed log and board structure measuring 18 x 8 ft
Feature 24- large coal slack pile
Feature 25- coal slack pile
Feature 26- brick and wood debris 23 x 26 ft - metal rebar
Feature 27- small wood structure with door - corrugated metal flat roof measuring 3 x 7 ft.
Feature 28- collapsed wood structure, possible coal bin. Metal and wood debris near by measuring 6 x 6.5 ft.

## 5.2 Features (continued)

Maxey North Lower Site (continued)

Feature 29- stone foundation measuring 23 x 26 ft
Feature 30- wagon
Feature 31- wagon
Feature 32- collapsed fence or gate - 10 ft long
Feature 33- flume measuring 9 x 3 ft long. Water or gas pipe measuring 3 ft long.
Feature 34- wood debris - 7 x 7 ft
Feature 35- stone foundation measuring 26 x 16 ft
Feature 36- small wood structure measuring 9 x 13 ft with larger scatter area. Wood debris - 23 x 36 ft.
Feature 37- log structure with gable roof measuring 33 x 23 ft. Mortar chinking and saddle-notching with wood shake roofing, round nail construtcion, vertical board siding at gable ends.
Feature 38- gable roofed log cabin measuring 13 x 13 ft with boxed eaves, wood shake roofing, novelty siding, wood foundation - Feature 37 and 38 possible moved in.

Maxey North Upper Site

Feature 1 - subsidence pit
Feature 2 - subsidence pit
Feature 3 - subsidence pit
Feature 4 - subsidence pit
Feature 5 - subsidence pit
Feature 6 - subsidence pit
Feature 7 - subsidence pit
Feature 8 - subsidence pit
Feature 9 - collapsed adit with depression
Feature 10- coal slack pile
Feature 11- wood debris - 10 x 13 ft
Feature 12- tailings pile - coal slack, four log posts at south side
Feature 13- coal slack pile
Feature 14- access trail leads you to Feature 14 - loading bin - 6.5 x 15 ft
Feature 15 - wood plank foundation with pipe located in foundation 23 x 26 ft. Brick scatter to the east - 23 x 29 ft scatter.
Feature 16 - collapsed wood structure with stone foundation 20 x 26 ft and small wood structure measuring 5 x 10 ft
Feature 17 - man-made ditch leads to creek just off access trail

5.4 Historical information and evaluation (continued)

Daniel Maxey began his career in coal mining with the development of a horizontal drift immediately west of Trail Creek in 1881 to supply the residents of nearby Bozeman with domestic fuel. Maxey was not a miner by trade, in fact he first appeared in the Gallatin Valley in August of 1866 selling beef and firewood to the troops garrisoned at Fort Ellis. Maxey's first mining enterprise proved a reasonable success with the production of 236 tons of coal in 1883 and 394 tons in 1884. In 1884 the Utah and Northern Railroad purchased most of Maxey's coal for use in the smelters of Butte, but an initial failure in coking experiments discouraged further development of the Maxey mines (Whithorn 1976; Roberts 1966).

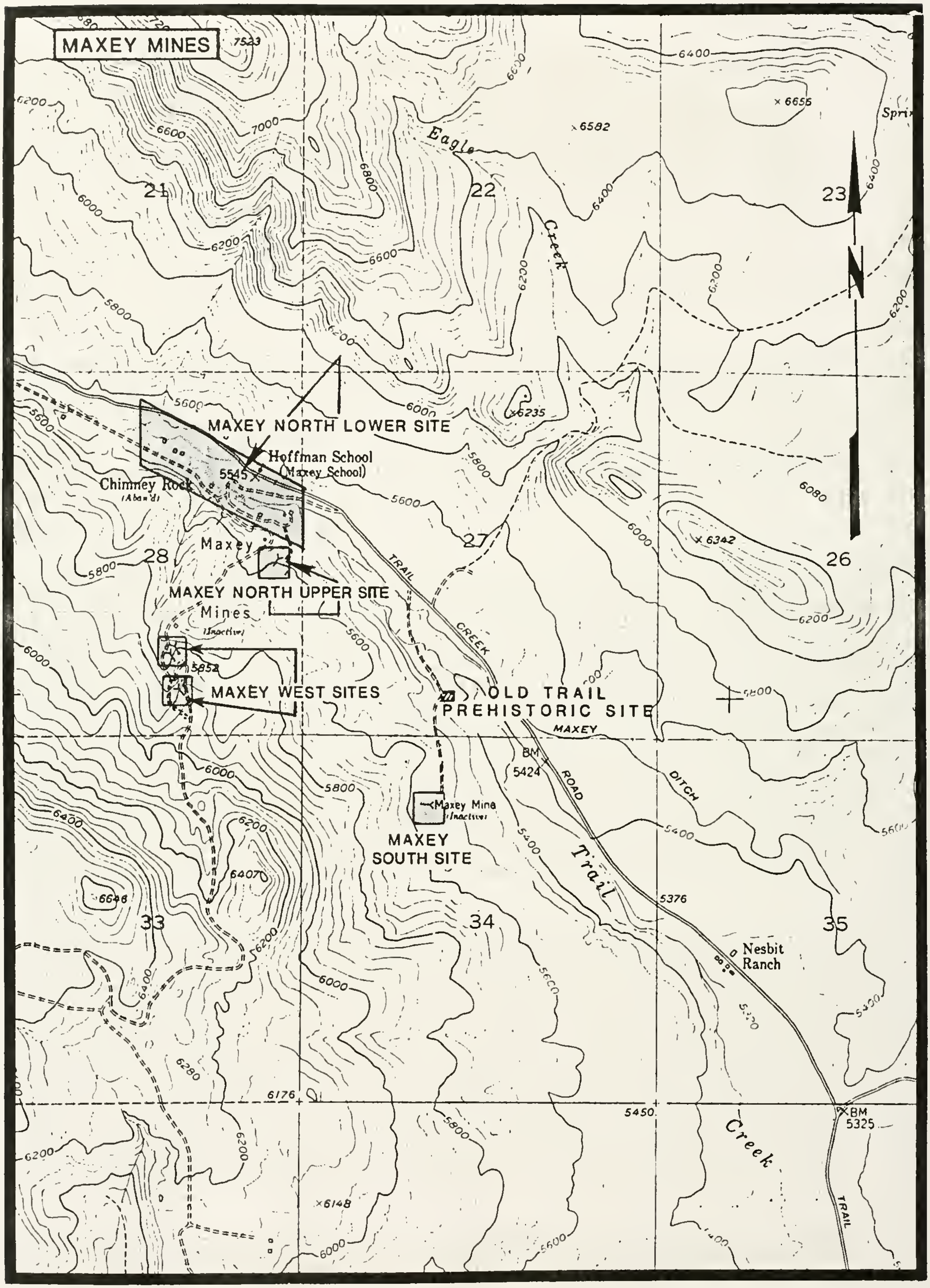
The mines remained idle until 1889 when Maxey opened the No. 1, 2 and 3 drifts utilizing an inclined shaft. Discouraged by development problems, Maxey sold his operation and 600 acres of coal lands in 1895 to A. B. Cook who operated the mines as the Trail Creek Coal Company. While driving a drift southwest from the No. 1 adit Cook's miners encountered numerous faults, causing increased discouragement and eventual abandonment of the operation. Within five years the Trail Creek coal mines again resided with Daniel Maxey and his four sons (Roberts 1966).

In 1903 the Trail Creek mines -- the Maxey, Byam, Cook and Chimney Rock -- began producing again, under the direction of Maxey's four sons. Between 1903 and 1910 the Maxey brothers -- John, William, David and George -- operated the most productive underground coal mines within the Trail Creek District, including two new mines. In 1903, miners working for the Maxey brothers, broke through the fault that had previously halted the advance to the south. In 1905 David and George Maxey pumped out and retimbered the old Byam mine, dating from 1884, and by 1906 began shipping coal from these old works. The opening of two new entries, the remodeling of the tipple and the installation of a new revolving screen prompted improved production at the Chimney Rock mine in 1908. Twenty-seven pick miners, working 211 days, extracted over 15,000 tons of coal. The Maxey brothers opened the No. 2 entry in 1908 and by 1910 they had connected this working to the No. 3 resulting in an increase in production from 150 to 200 tons of coal per day (Roberts 1966; Rowe 1909; Calvert 1912; Whithorn 1976).

Production increased markedly over the period, from 500 tons in 1906 to over 32,000 tons in 1910. At the height of production the Maxey brothers boasted a work force of 47 men. Miners extracted high-grade coal from the Maxey mines until 1916, when they struck a fault and lost the seam. The miners looked unsuccessfully for the seam for the next two years, but 10 years would pass before full-scale mining would resume in the Maxey mines. Finally in the late 1920s John, William and George Maxey reopened the old works, mining out the old pillars and striking a rich coal seam in 1930. However, this bonanza proved shortlived and by 1931 the Maxeys' abandoned their mines along Trail Creek for the last time, but not before removing over 200,000 tons of high quality domestic grade coal over the 40 years of activity (Roberts 1966; Whithorn 1976).

The Maxey family made an important, long-term contribution to the mining of coal in the Trail Creek District and to public affairs in Gallatin and Park Counties. Before his death in 1910, Daniel Maxey served on both the Bozeman

City Council and the Park County Council of Commissioners. Three of Daniel's sons -- John, William and George -- took up residence in Bozeman in 1918 during their initial abandonment of the family mines. In 1919 David Maxey left Trail Creek for Livingston. During the mining boom, the town of Maxey claimed 37 houses and a boarding house for miners. Today, only Daniel Maxey's house remains (Whithorn 1976).


MAXEY MINES
MAXEY NORTH LOWER SITE
Hoffman School
(Maxey School)
5545
Chimney Rock
(Aban'd)
Maxey
MAXEY NORTH UPPER SITE
Mines
(Inactive)
5852
MAXEY WEST SITES
OLD TRAIL PREHISTORIC SITE
Maxey Mine
(Inactive)
MAXEY SOUTH SITE
Eagle Creek
TRAIL CREEK
MAXEY ROAD
MAXEY DITCH
Trail Creek
TRAIL
Nesbit Ranch
BM 5424
BM 5325
5376
5450
6176
6148
6646
6407
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6655
7523
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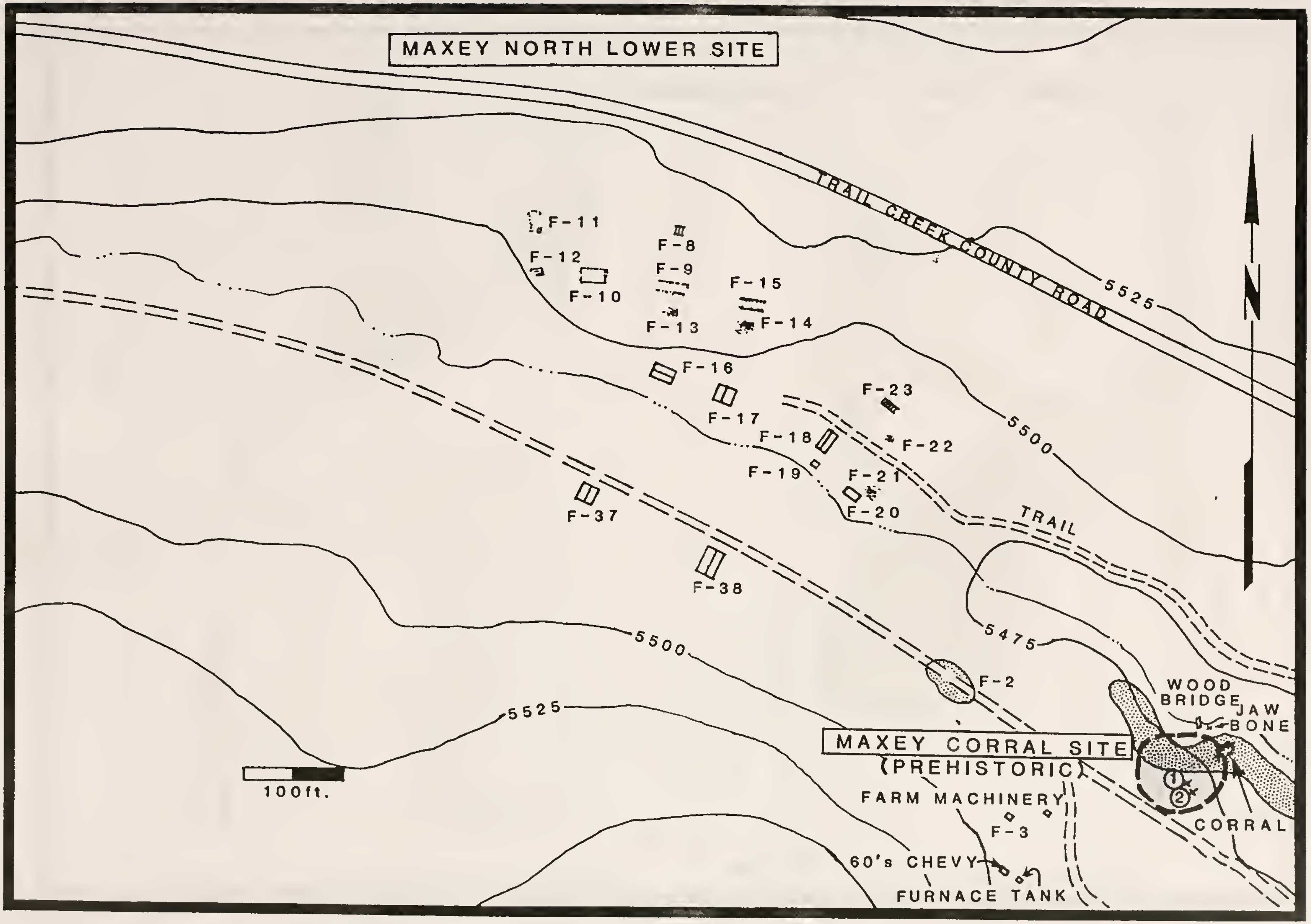
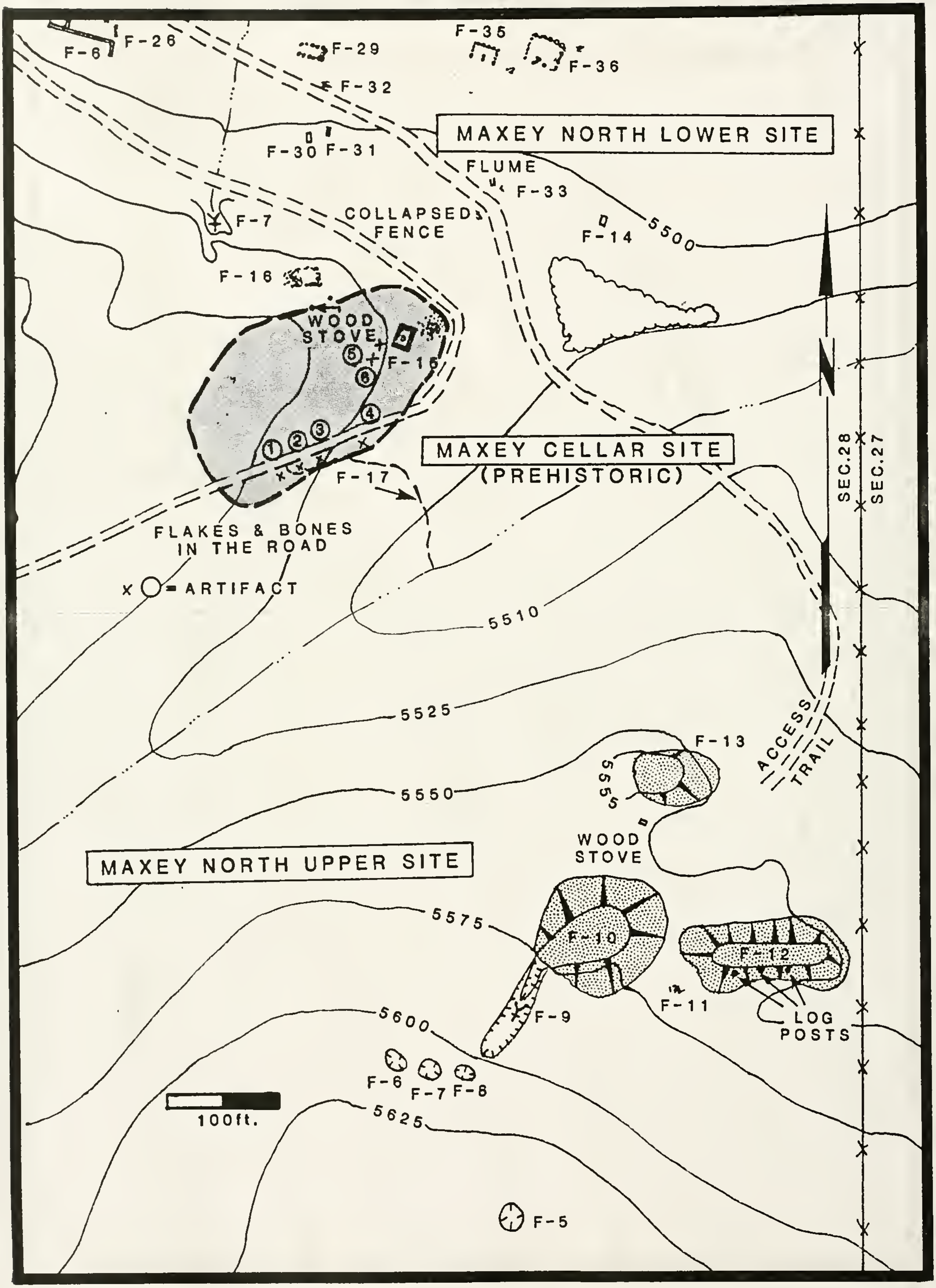
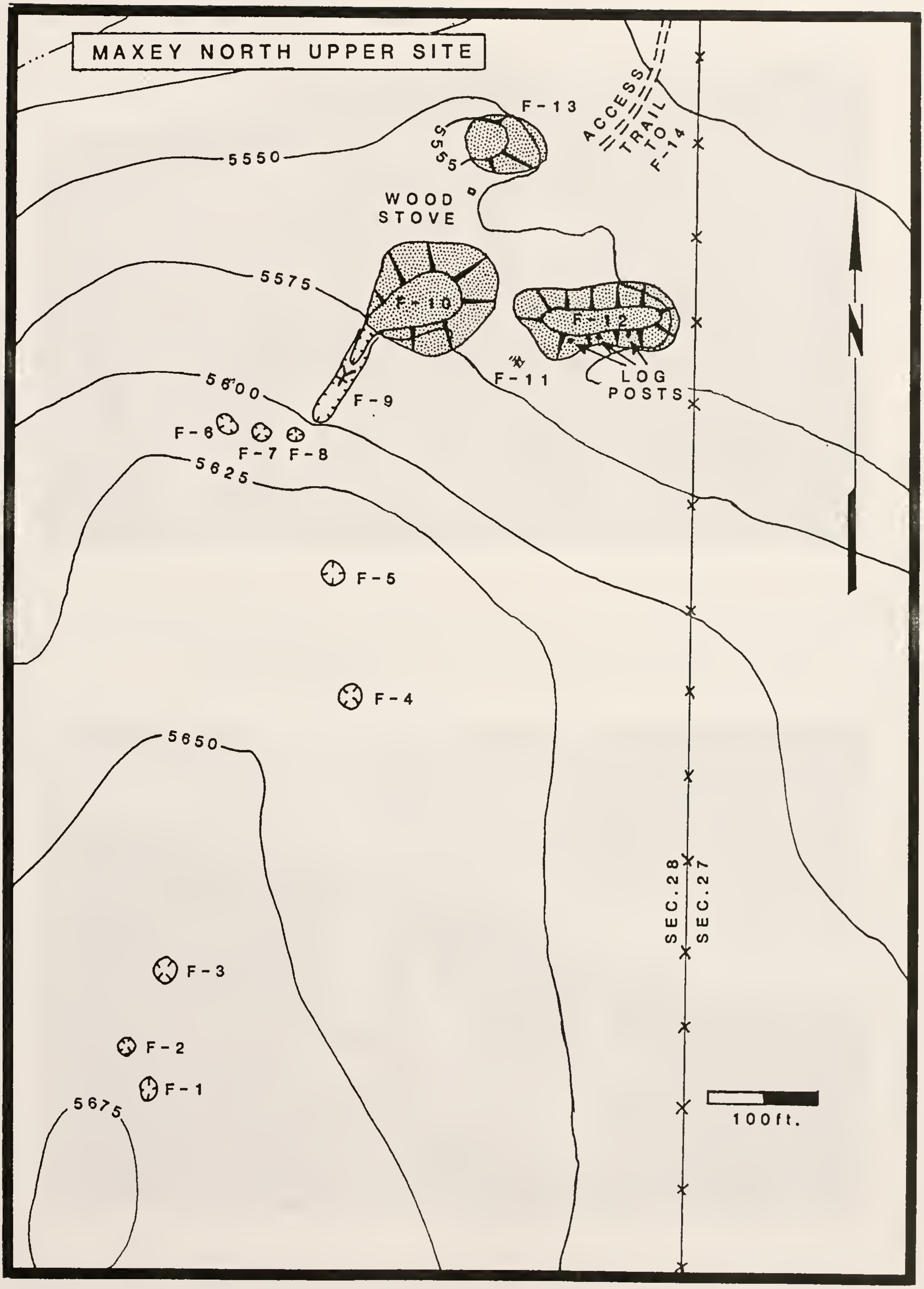
N


MAXEY NORTH LOWER SITE
TRAIL CREEK COUNTY ROAD
N
5525
5500
5475
5500
5525
TRAIL
F-8
F-9
F-10
F-11
F-12
F-13
F-14
F-15
F-16
F-17
F-18
F-19
F-20
F-21
F-22
F-23
F-37
F-38
F-2
F-3
WOOD BRIDGE
JAW BONE
CORRAL
①
②
MAXEY CORRAL SITE
(PREHISTORIC)
FARM MACHINERY
60's CHEVY
FURNACE TANK
100ft.


F-6
F-26
F-29
F-35
F-36
F-32
MAXEY NORTH LOWER SITE
F-30
F-31
FLUME
F-33
F-7
COLLAPSED FENCE
F-14
5500
F-16
WOOD STOVE
5
F-15
1
2
3
4
5
6
F-17
MAXEY CELLAR SITE
(PREHISTORIC)
FLAKES & BONES IN THE ROAD
x ○ = ARTIFACT
5510
SEC.28
SEC.27
5525
ACCESS TRAIL
F-13
5555
5550
WOOD STOVE
MAXEY NORTH UPPER SITE
5575
F-10
F-12
F-9
F-11
LOG POSTS
5600
F-6
F-7
F-8
100ft.
5625
F-5


MAXEY NORTH UPPER SITE
F-13
5550
555
ACCESS TRAIL TO F-14
WOOD STOVE
5575
F-10
F-12
F-11
LOG POSTS
5600
F-9
F-6
F-7
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SEC. 27
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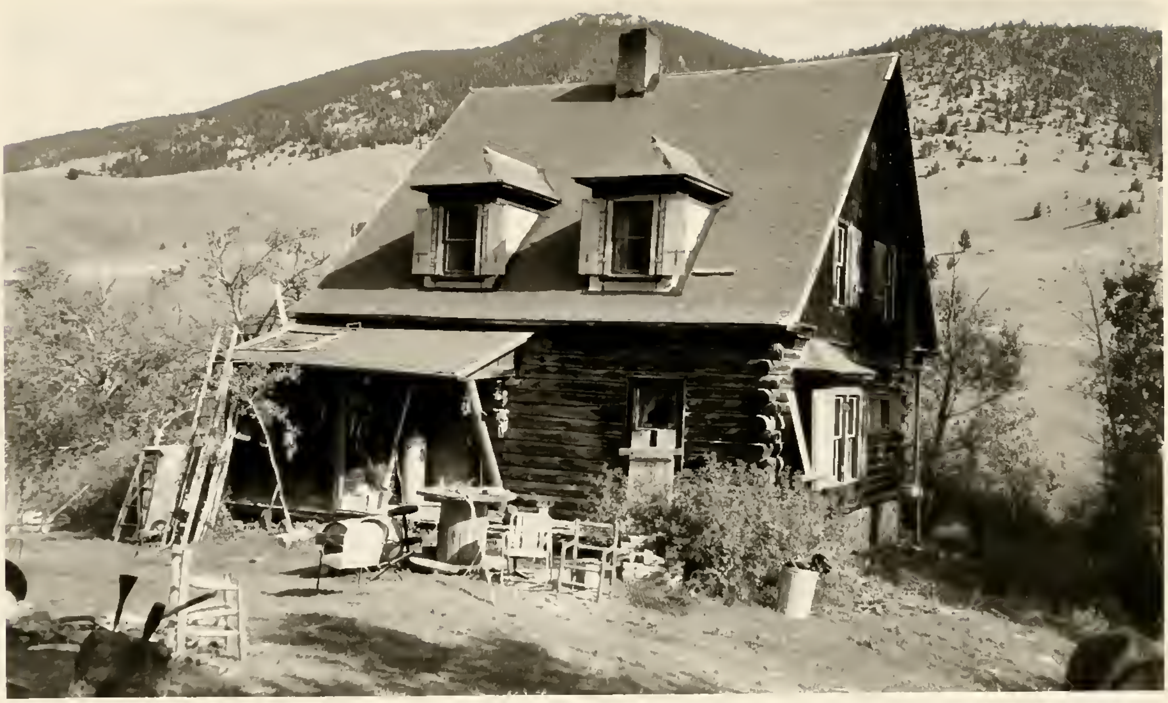
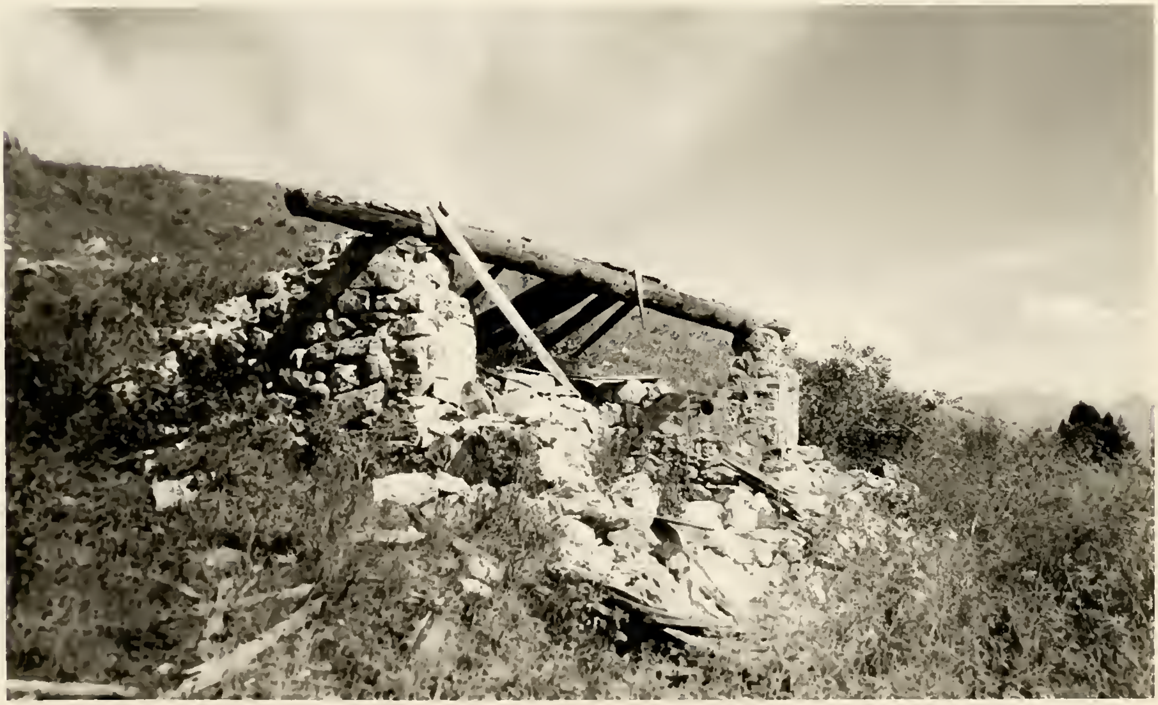
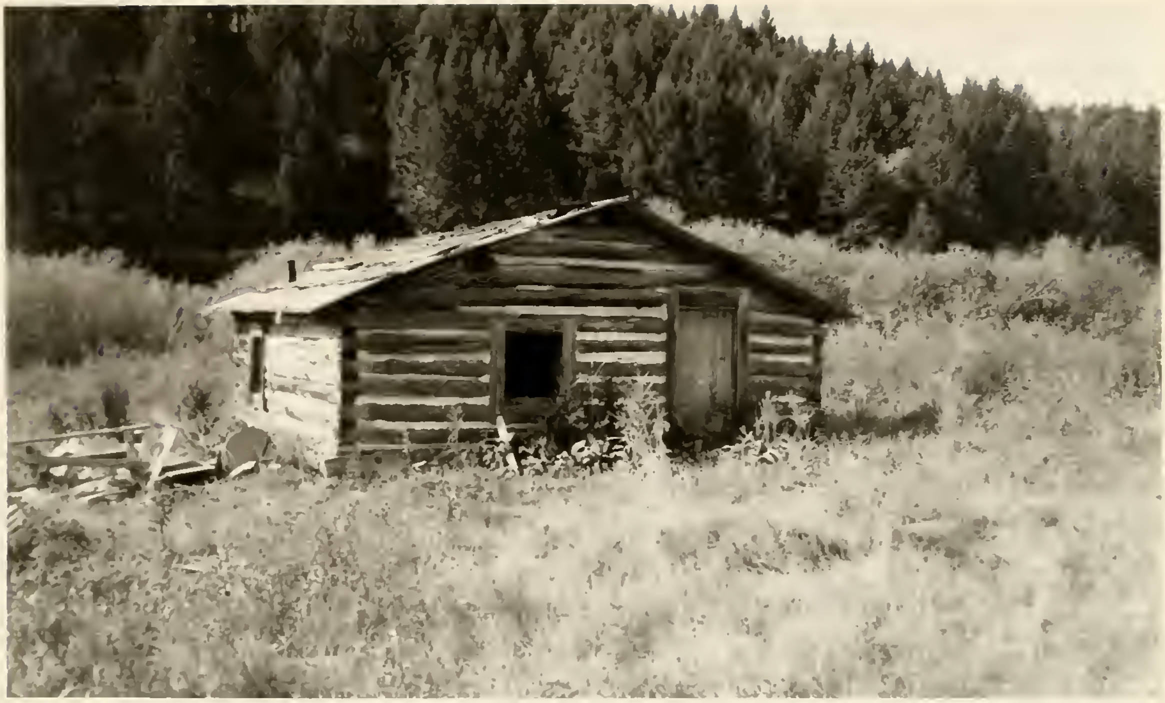
F-2
F-1
5675
100 ft.



Maxey family house at Maxey North Lower Site. View to the east-northeast.



Ruins of stone structure at Maxey North Lower Site. View to the east - southeast.



Miner's cabin at Maxey North Lower Site on the north side of Trail Creek. View to the southwest.

Subsidence pit at Maxey North Upper Site. View to southeast.

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 1 Locational Information

| | | |
|---|---|---|
| 1.1 Site number:<br>24PA787 | 1.2 Site name/field designation:<br>Maxey Mine South | 1.3 County:<br>Park |

1.4 Township/range:

T 3S R 8E NE 1/4 NW 1/4 of Section 34

1.5 UTM:

Zone 12 521 420 Easting 5042 480 Northing

| | |
|---|---|
| 1.6 Site type:<br>historic coal mine | 1.7 Recording status & comments:<br>photographed, mapped and recorded |

1.8 Administrative/surface ownership:

Emigrant Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership:
Richard Kinkie

1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

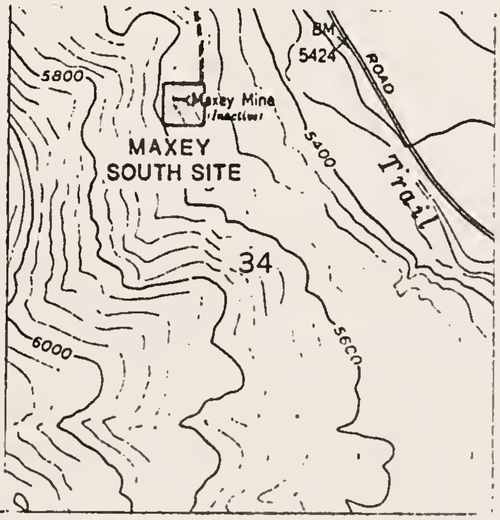
1.11 General narrative description of site:

The Maxey South mine is located along Trail Creek on an open hillside above the creek bottom. All that remains are several large depressions, two collapsed adits and some grown-over waste piles. This mine was one of several Trail Creek mines operated by the Maxey Brothers between 1903 and 1910.

1.12 Map reference:
Chimney Rock, Mont. 1:24,000 1951

1.13 City/town: ☒ vicinity of
Livingston, MT

1.14 Access to site:
Proceed east on I-90 from Bozeman approximately 6 miles and take the Trail Creek Road exit. Drive south on Trail Creek approximately 12 miles looking for several subsidence pits on the hillside above the creek to the right. An old wagon road crosses the creek in the vicinity of the mine. If you pass the Nesbit ranch (with buildings on both sides of the road), you have come approximately one mile too far south.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA787

2.1 Geographic setting:

2.2 Elevation: 1634 m 5360 ft.

The Maxey South is located on a sage-covered hillside above Trail Creek approximately 10 miles northwest of the Yellowstone River. Trail Creek flows through a rather narrow mountain valley at the southern end of the Bridger Range. The site is southwest of Livingston and approximately 15 miles west of the Absaroka Range.

2.3 View/aspect:
east

2.4 Major drainage:
Trail Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 1000 ft | 120 ft | perennial |
| b. | | | | |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, Douglas hawthorne, wheatgrass, and willows and snowberry along creek bottom

2.9 Soils:
sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:
100%/fall

2.11 Other environmental factors pertaining to site location:
The site is located within the Trail Creek District of the Livingston Coal Field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA787

3.1 Condition of site:

Little remains of this historic underground coal mine. All structures have been removed and all that remains are several subsidence pits and part of a diesel engine. There is a prehistoric site just north of the mine site, along the creek bottom.

3.2 Site significance (NRHP):

The site was historically part of the Maxey brothers mining operation, a productive underground mining operation during the early twentieth century in the Livingston coal field. The absence of historic structures makes the site ineligible for inclusion on the National Register of Historic Places, but the prehistoric site adjacent has the potential to yield further information about early life in this mountain valley.

☐ Attachments:

3.3 Impacts:

The recommended reclamation of this site will not have an adverse impact on cultural resources or an interpretation of this district provided heavy equipment is kept off the terrace where prehistoric artifacts were found. (See site map for location.)

3.4 Recommendations:

The site has been photographed, mapped and recorded. If the prehistoric site is to be impacted during reclamation testing is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Brian Shovers, Tom Jerde, Jim Duran<br>Date: 9/87 | 3.6 Site recorded by:<br>Brian Shovers, Tom Jerde, Jim Duran<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

See attached.

| | |
|---|---|
| 3.10 Artifact repository:<br>none collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:
1987 Maxey South proofs
No. #3 - 14-23 Description View

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA787

5.1 Site dimensions, how determined:
400 x 500 ft

60,960 $m^2$

5.2 Features:
Feature 1 - subsidence pit with coal slack to the east. Wood and metal debris are located in the depression.
Feature 2 - two smaller subsidence pits, the larger is adjacent to the coal slack pile.
Feature 3 - coal slack pile
Feature 4 - mining machinery - adapted from a diesel engine
Feature 5 - collapsed adit with depression
Feature 6 - subsidence pit
Feature 7 - subsidence
Feature 8 - coal slack dump
Feature 9 - adit - collapsed with depression
Feature 10- subsidence
Feature 11- subsidence - wood stove and corrugated metal debris are located just south of this feature
Feature 12- subsidence
Feature 13- subsidence with small coal slack pile

5.3 Artifacts (observed, collected):
Artifacts observed consisted of part of an old diesel engine (probably from 1930s), and numerous quartzite flakes on a terrace just north of the site.

5.4 Historical information and evaluation:

In 1898 William Maxey, son of a western Montana pioneer Daniel Maxey, obtained a patent on 160 acres of coal land immediately above and to the west of Trail Creek. The Maxey South property was situated approximately one mile south of a major underground coal mining complex operated by Daniel Maxey between 1903 and 1931 (Roberts 1966; BLM Records, Homestead Entry Patent #1292).

Although associated with the Maxey family through the homestead entry patent, the mine is not specifically identified in any of the other historical information about the Trail Creek District.

5.5 References
(See Section 3.0)

5.6 Subsurface testing, results, methods, etc.:
None

3.9 Publications concerning site: (continued)

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

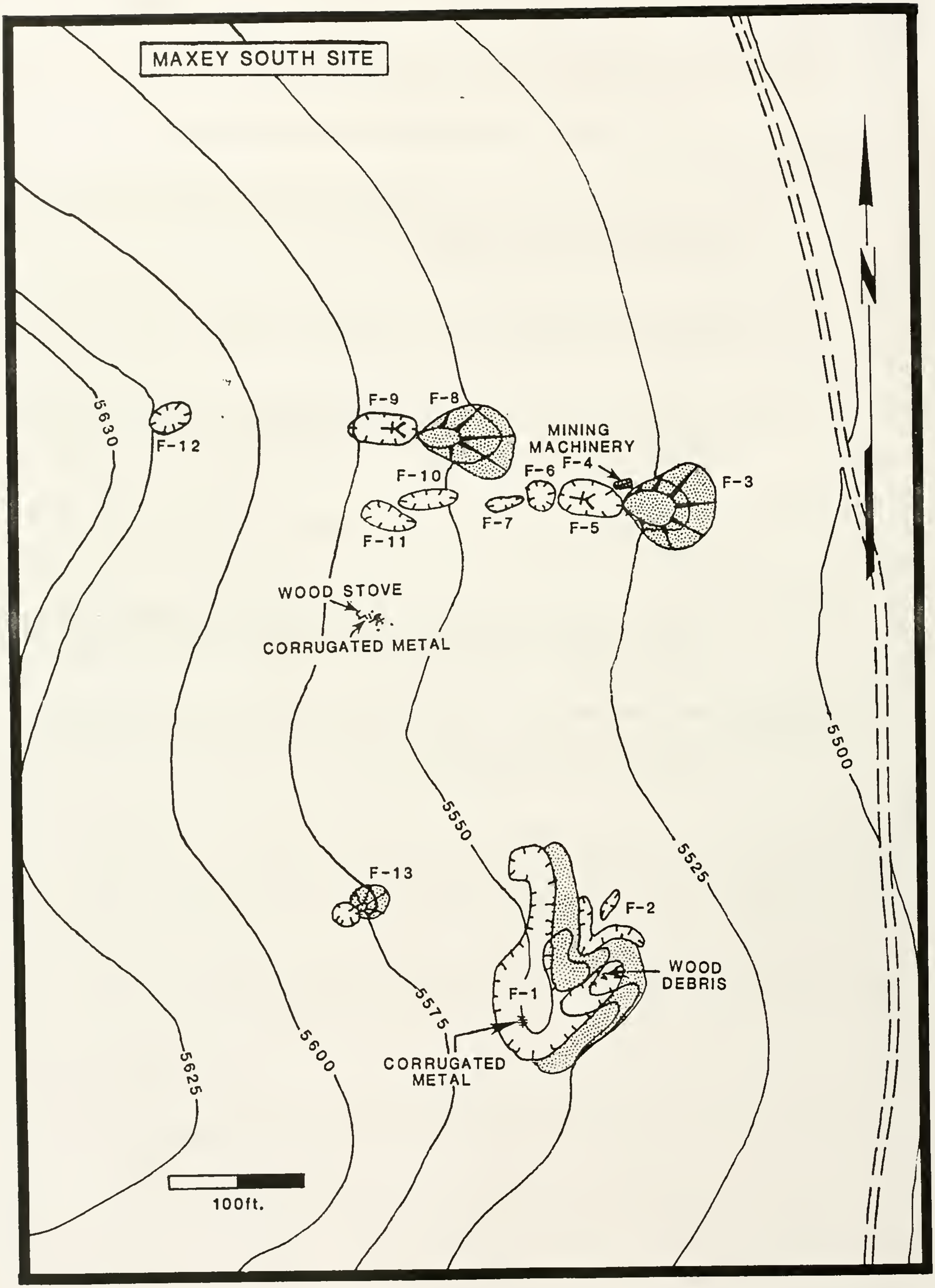
Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Rowe, J. P.
1905 The Montana Coal Fields: Their Commercial Value, Mining Magazine. March.

Shovers, Brian
1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County - Part 2, Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.


MAXEY SOUTH SITE
F-1
F-2
F-3
F-4
F-5
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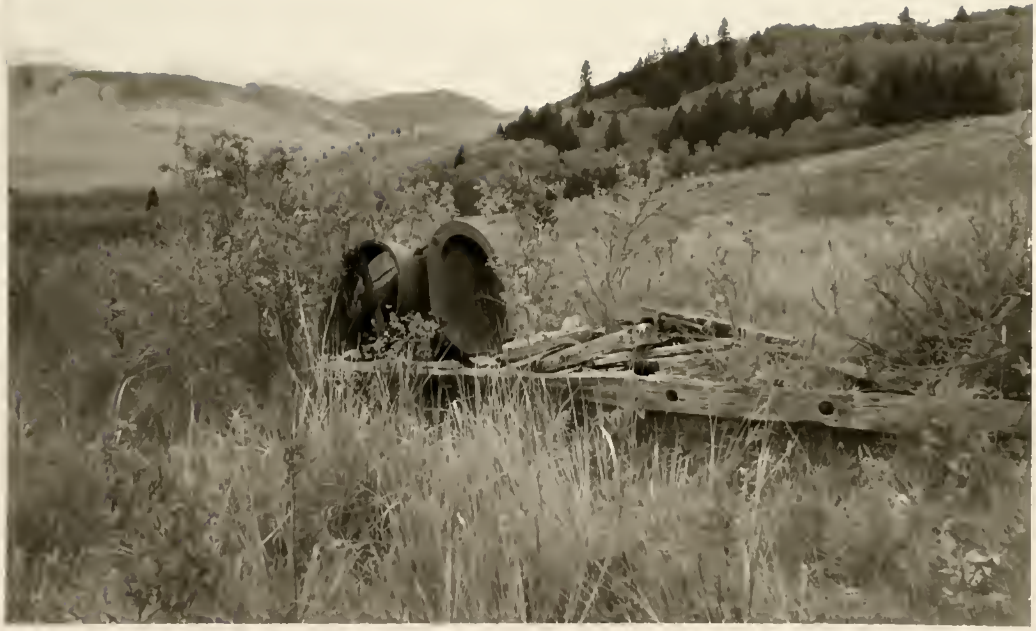
F-7
F-8
F-9
F-10
F-11
F-12
F-13
MINING MACHINERY
WOOD STOVE
CORRUGATED METAL
WOOD DEBRIS
CORRUGATED METAL
5630
5625
5600
5575
5550
5525
5500
N
100ft.



Remains of diesel engine at Maxey South Site. View to the south-southeast.

## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 1 Locational Information

1.1 Site number: 24PA788

1.2 Site name/field designation: Morrison Mine

1.3 County: Park

1.4 Township/range:

T 3S R 8E SW 1/4 SW 1/4 of Section 17

1.5 UTM:

Zone 12 517 250 Easting 5046 600 Northing

1.6 Site type: historic coal mine

1.7 Recording status & comments: photographed, mapped and recorded

1.8 Administrative/surface ownership:

Emigrant Peak Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership: Richard Kinkie

1.10 Project name: Department of State Lands Abandoned Mine Reclamation Program

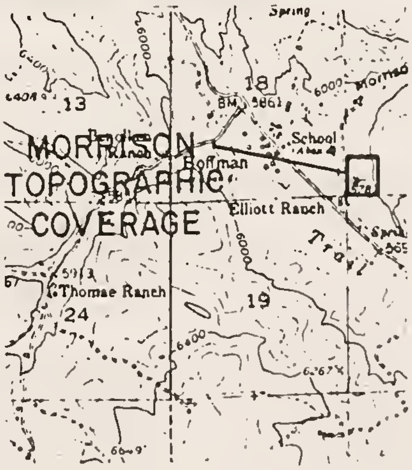
1.11 General narrative description of site:

The historic Morrison Mine is located just above Meadow Creek in open sage-covered grassland. The most distinguishing features of the site included several large slack piles, a number of scattered subsidence pits, and the remains of a wooden loading platform. The site is located in a narrow mountain valley west of the Absaroka Range.

1.12 Map reference: Bozeman Pass, Mont. 1:62500 1951

1.13 City/town: Livingston, MT ☒ vicinity of

1.14 Access to site:
Drive 8 miles east of Bozeman on I-90, turn right on Trail Creek exit. Proceed south on Trail Creek road for approximately six miles and the Morrison Mine is just off the county road to the left through a closed gate.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA788

2.1 Geographic setting:

2.2 Elevation: 1760 m 5775 ft.

The site is located between several low-lying hills above Meadow Creek in a rather narrow valley with the Bridger Mountains to the east and the Gallatin Range to the west. The hillsides above the site are covered with lodgepole pine and Douglas Fir. Small ranches and hayfields occupy the land both north and south of the site.

2.3 View/aspect:
open/south

2.4 Major drainage:
Meadow Creek

2.5 Minor drainage(s):
Morrison Creek Tributary

2.6 Water sources:

| Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|
| a. Morrison Creek Tributary | 640 ft | 50 ft | intermittent |
| b. Meadow Creek | 1320 ft | 80 ft | perennial |

2.7 Regional vegetation:

foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, aspen, grasses, Douglas hawthorne, and western snowberry

2.9 Soils:
sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:
100%/fall

2.11 Other environmental factors pertaining to site location:
The site is located in the Trail Creek District of the Livingston Coal Field.

## MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA788

3.1 Condition of site:
Nothing remains of this historic mining site except part of a loading platform, partial remains of a coal car, a number of subsidence pits and three slack piles.

3.2 Site significance (NRHP):

Although important coal mining operations existed just south of Morrison at Maxey, there is no historical information or structures standing to justify this site's inclusion on the National Register of Historic Places.

☐ Attachments:

3.3 Impacts:
The proposed reclamation will not have a negative impact on existing cultural resources.

3.4 Recommendations:
The site has been photographed, mapped and recorded and no further work is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Brian Shovers, Jim Duran, and Tom Jerde<br>Date: 9/87 | 3.6 Site recorded by:<br>Brian Shovers, Jim Duran and Tom Jerde<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:
Bureau of Land Management Patent Records, Billings, Montana.
Payne, Gene F. 1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.
Shovers, Brian 1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County Part 2, Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>none collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:
1987 Morrison proofs

| No. | Description | View |
|---|---|---|
| 5 - #1-6 | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA788

5.1 Site dimensions, how determined:
1280 x 1520 ft

593,018 $m^2$

5.2 Features:

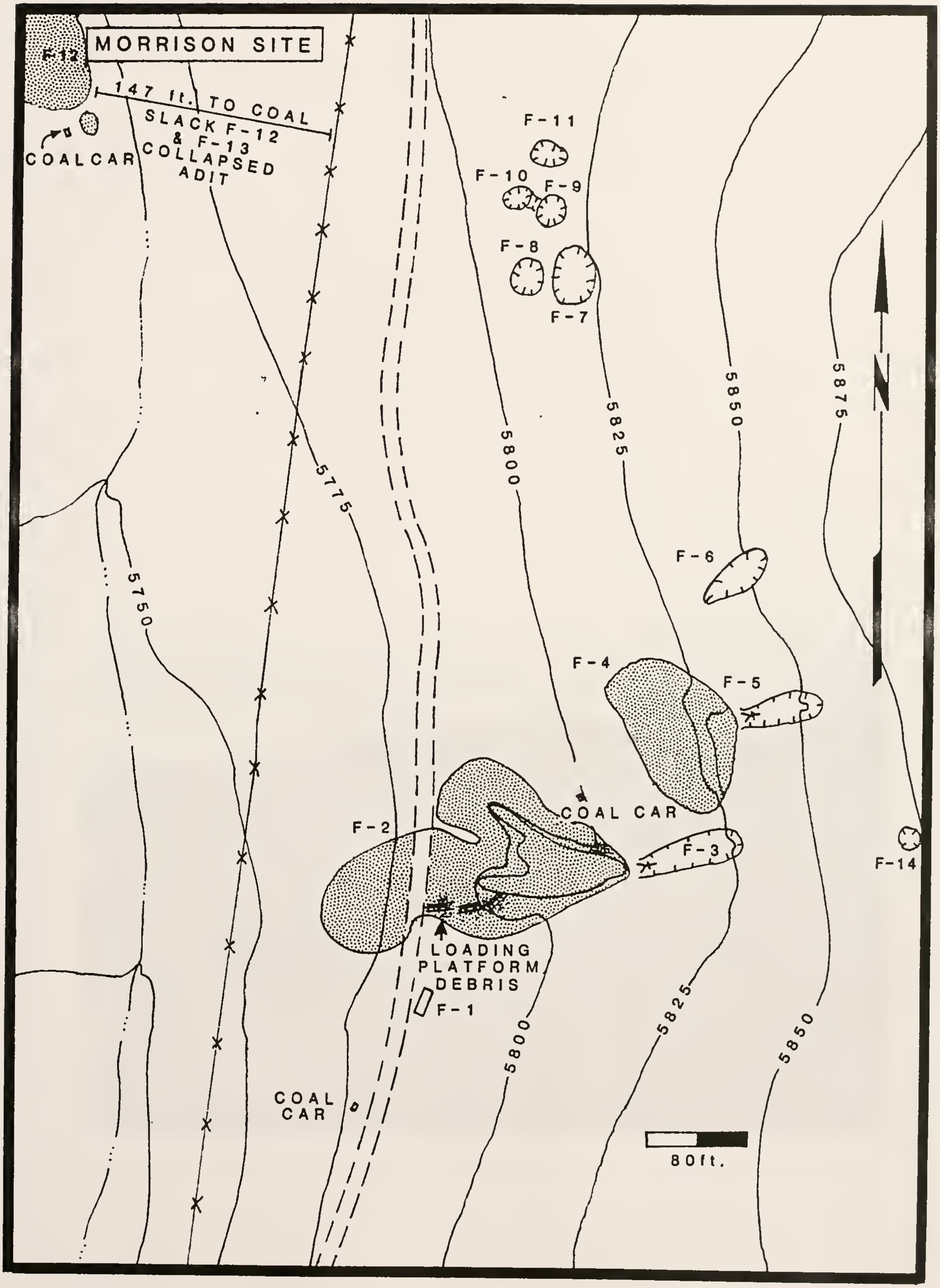
Feature 1 - partially collapsed shed-roofed structure with vertical board siding measuring 23 x 8 ft. A coal car is located south just off access.
Feature 2 - coal slack pile with loading chute debris chute measuring 10 ft x 30 ft. Debris area.
Feature 3 - collapsed adit with depression. More wood debris and an ore car are located just to the northwest of this feature off Feature 2.
Feature 4 - upper coal slack dump.
Feature 5 - collapsed adit in depression; a subsidence hole is located southeast of this.
Feature 6 - subsidence pit
Feature 7 - subsidence
Feature 8 - subsidence
Feature 9 - subsidence attached to Feature 10 by small trench.
Feature 10 - subsidence attached to Feature 9.
Feature 11 - subsidence
Feature 12 - coal slack dump with small deposit at south end. A coal car is located at the south end.
Feature 13 - collapsed adit cut into hillside - rock face.

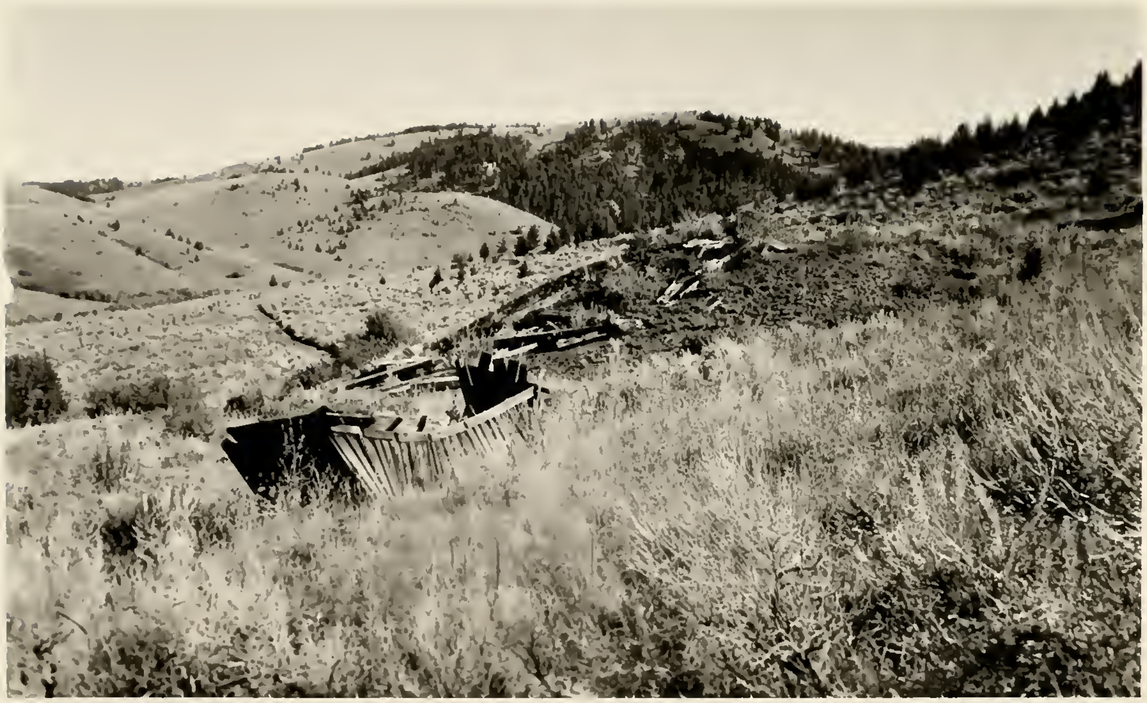
5.3 Artifacts (observed, collected):
None

5.4 Historical information and evaluation:
Public land records show that the Northern Pacific Railroad patented 480 acres in the vicinity of the Morrison Gulch Mine in November 1893. No additional information on the operation of this historic mine were located (BLM Government Land Office Records). Mining probably occurred during the first decade of the twentieth century and, at the latest, would have ended by 1937 when all mining ended in the district.

5.5 References
See Section 3.9.

5.6 Subsurface testing, results, methods, etc.
None


MORRISON SITE
F-12
147 ft. TO COAL SLACK F-12 & F-13 COLLAPSED ADIT
COALCAR
F-11
F-10
F-9
F-8
F-7
N
5875
5850
5825
5800
5775
5750
F-6
F-4
F-5
COAL CAR
F-2
F-3
F-14
LOADING PLATFORM DEBRIS
F-1
5800
5825
5850
COAL CAR
80ft.



Ruins of wooden storage bin at Morrison Gulch Site. View to the north.

## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 1 Locational Information

1.1 Site number:
24PA789

1.2 Site name/field designation:
Kountz Mine

1.3 County:
Park

1.4 Township/range:

T 3S R 8E SE 1/4 NW 1/4 of Section 20

1.5 UTM:

Zone 12 518 000 Easting 5045 400 Northing

1.6 Site type:

historic coal mine

1.7 Recording status & comments:

photographed, mapped and recorded

1.8 Administrative/surface ownership:

Emigrant Peak Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership:
Richard Kinkie

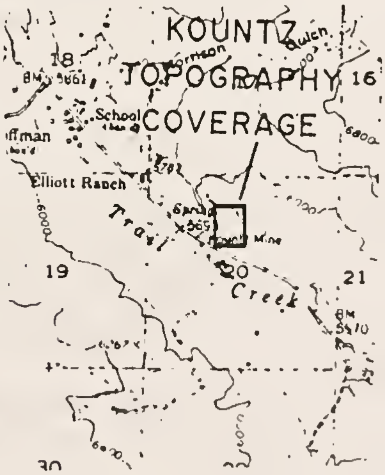
1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

1.11 General narrative description of site:
The Kountz mine is located on a sage-covered hillside among a scattering of Douglas fir trees just above Trail Creek. All that remains of this historic underground coal mine are several large slack piles, a number of subsidence pits, some wood debris and a wide assortment of farm machinery and junk automobiles. The old mine site is surrounded by fenced grazing land rising up to timbered foothills.

1.12 Map reference:
Bozeman Pass, Mont. 1:62500 1951

1.13 City/town: [x] vicinity of
Livingston, MT

1.14 Access to site:
Drive 8 miles east of Bozeman on I-90. Take Trail Creek Road exit and proceed south on Trail Creek Road for approximately 6-1/2 miles. On the left there is a coal slack pile and an extensive collection of abandoned machinery. The main adit is located approximately 100 ft above the road and the slack pile.



# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 2. Environmental Setting

Site number: 24PA789

2.1 Geographic setting:

2.2 Elevation: 1737 m 5700 ft.

The Kountz mine site is lcoated on an open, sage-covered hillside in the Trail Creek Valley just 10 miles west/northwest of the Paradise Valley of the Yellowstone. The pine and fir-covered foothills of the Gallatin/Bridger ranges rise above the site to an elevation of 7500 ft.

2.3 View/aspect:
southwest

2.4 Major drainage:
Trail Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 500 ft | 25-80 ft | perennial |
| b. | | | | |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, aspen, Douglas fir, lodgepole pine, rose, buffaloberry

2.9 Soils:

sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:

100%/fall

2.11 Other environmental factors pertaining to site location:
The site is located within the Trail Creek District of the Livingston Coal Field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA789

3.1 Condition of site:
All that remains of the historic Kountz Mine are several coal slack piles and some wooden debris left to deteriorate. All of the original mining structures have been either demolished or moved.

3.2 Site significance (NRHP):
The site was part of the productive Trail Creek District, one of Montana's earliest underground coal mines, but it did not produce as much or as long as the Maxey mines to the south. Because of the absence of historic structures on the site and the relative lack of historical importance attached to this particular mine, the site does not qualify for inclusion on the National Register of Historic Places.

☐ Attachments:

3.3 Impacts:
The plan to remove the coal slack piles and fill the adits and depressions will not have an adverse impact on existing cultural resources found on site.

3.4 Recommendations:
The site has been photographed, mapped and recorded and no further work is recommended.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Brian Shovers, Tom Jerde, and Jim Duran<br>Date: 9/87 | 3.6 Site recorded by:<br>Brian Shovers, Tom Jerde and Jim Duran<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.

3.9 Publications concerning site:

See attached.

| | |
|---|---|
| 3.10 Artifact repository:<br>none collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| | | |
|---|---|---|
| 1987 Kountz Mine Proofs | Description | View |
| Roll No. 1 - 4-16 | | |

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 5. Description of Historic Sites

Site number: 24PA789

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5.1 Site dimensions, how determined:
600 x 920 ft

168,250 $m^2$

---

5.2 Features:

Feature 1 - debris from collapsed structure and general area. 1950's Kaiser car, overturned 1940s truck-flatbed, six 50 gallon drums, metal and wood debris, old tractor, overturned 1950s Mercury car, farm machinery, 1960s Ford Truck, thresher - "J.D. Case Threshing Machine Co. Racine Wis. USA", wood debris, old wagon with metal spoked wheels, wood and steel chassis (46 m x 68 m) (151 x 223 ft area)

Feature 2 - 197 x 197 ft area - wood debris, coal slack, brick debris measuring 13 x 13 ft. Old wagon, farm machinery debris. (60 m x 60 m)

Feature 3 - collapsed adit with depression, wood debris outside of area.
Feature 4 - collapsed structure - wood debris.
Feature 5 - sbusidence pit.
Feature 6 - subsidence
Feature 7 - subsidence with small subsidence next to it.
Feature 8 - subsidence
Feature 9 - mine dump - coal slack
Feature 10- mine dump - coal slack
Feature 11- two larger mine dumps
Feature 12- collapsed adit
Feature 13- large tailings pile in which Feature 1 and Feature 2 rest. (coal slack) A corral and farm building are located directly south of Feature 13 - fence posts are present on the tailings pile also.

---

5.3 Artifacts (observed, collected):

Artifacts observed were: J.I. Case threshing machine; 1950s Kaiser automobile, 1950's Mercury automobile, wagon wheel, 1960s Ford truck, 1940s truck, miscellaneous farm machinery, and wood cook stove parts.

---

5.4 Historical information and evaluation:

See attached.

---

5.5 References

See Section 3.9.

---

5.6 Subsurface testing, results, methods, etc.

None

## 3.9 Publications Concerning Site (continued)

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

Inspector of Mines, State of Montana
1905-1906 Biennial Report. Independent Publishing Co., Helena.

Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Shovers, Brian
1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County Part 2, Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

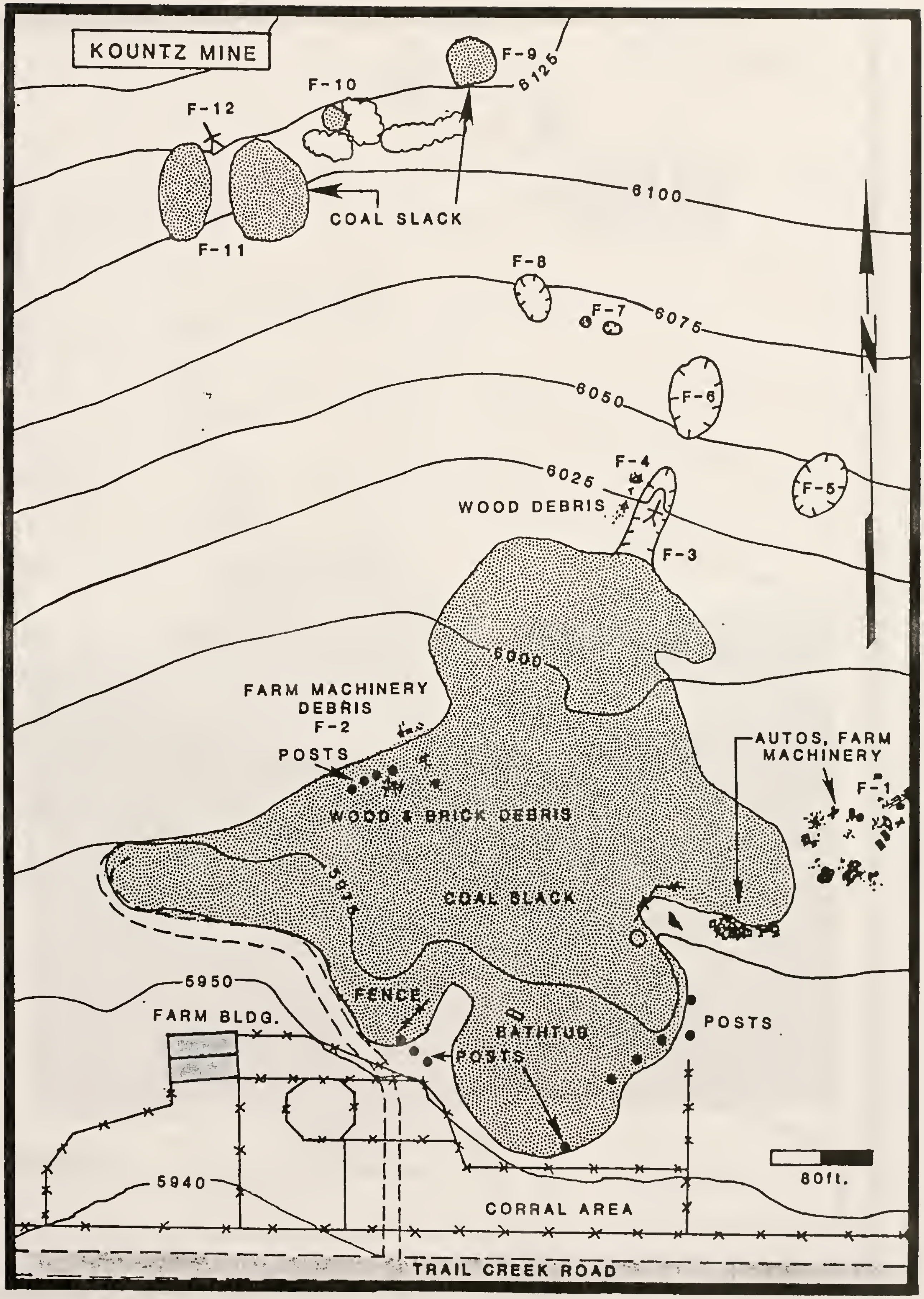
Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.

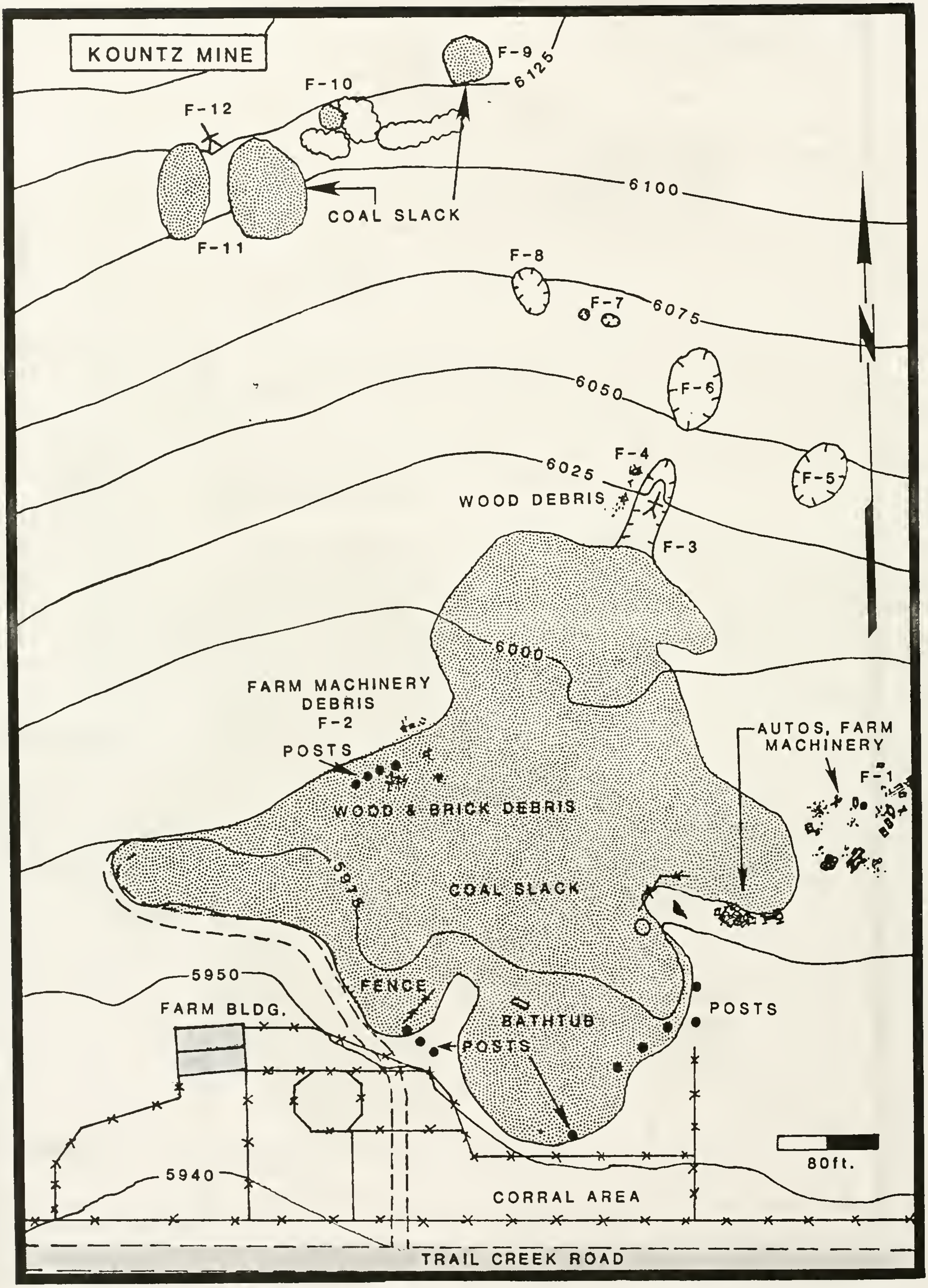
## 5.4 Historical information and evaluation:

In the late 1880s J.J. Kountz, a Bozeman banker, and John Cox of the Park County Coal Company, drove an inclined shaft initiating work at the Kountz Mine, a claim patented by Jerome B. Waterman in 1897 (Patent No. 63). By 1905, a work force of 15 men extracted 3000 tons of coal and two years later reached a depth of 700 ft, under the direction of new owners J. W. Anderson and T. J. Evans. Under their direction the miners drove a drift 750 ft to the northwest and 550 ft southeast (Roberts 1966; BLM Mine Lease and Patent Records).

The Kountz mine site, located approximately one mile southeast of the Hoffman mine, included a steam hoist, wooden tipple, and exhaust fans to ventilate the underground. Between 1903 and 1910 miners removed coal from two benches, each overlaid with one foot of sandstone, on four different levels. By 1907 the work force increased to 45 men who extracted over 8300 tons of coal. The next year Kountz miners removed 5700 tons, most of which the company shipped to Bozeman for domestic use (Calvert 1912; Inspector of MInes 1905-1906).

An underground mine fire in 1910 halted production temporarily, but the Kountz never reopened, due in part to a shrinking demand and the disappearance of easily accessible coal beds. During the mine's most productive years, the Trail Creek Trading Company, a partnership of Frank Buttrey, George Dier, and John Ross, sold dry goods and supplies to the miners from a location just below the mine along the Trail Creek road (Calvert 1912; Whithorn 1976).


KOUNTZ MINE
F-9
6125
F-10
F-12
COAL SLACK
F-11
6100
F-8
F-7
6075
F-6
6050
F-4
6025
F-5
WOOD DEBRIS
F-3
6000
FARM MACHINERY
DEBRIS
F-2
POSTS
AUTOS, FARM
MACHINERY
F-1
WOOD & BRICK DEBRIS
5975
COAL SLACK
5950
FENCE
FARM BLDG.
BATHTUB
POSTS
POSTS
80ft.
5940
CORRAL AREA
TRAIL CREEK ROAD


KOUNTZ MINE
F-9
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COAL SLACK
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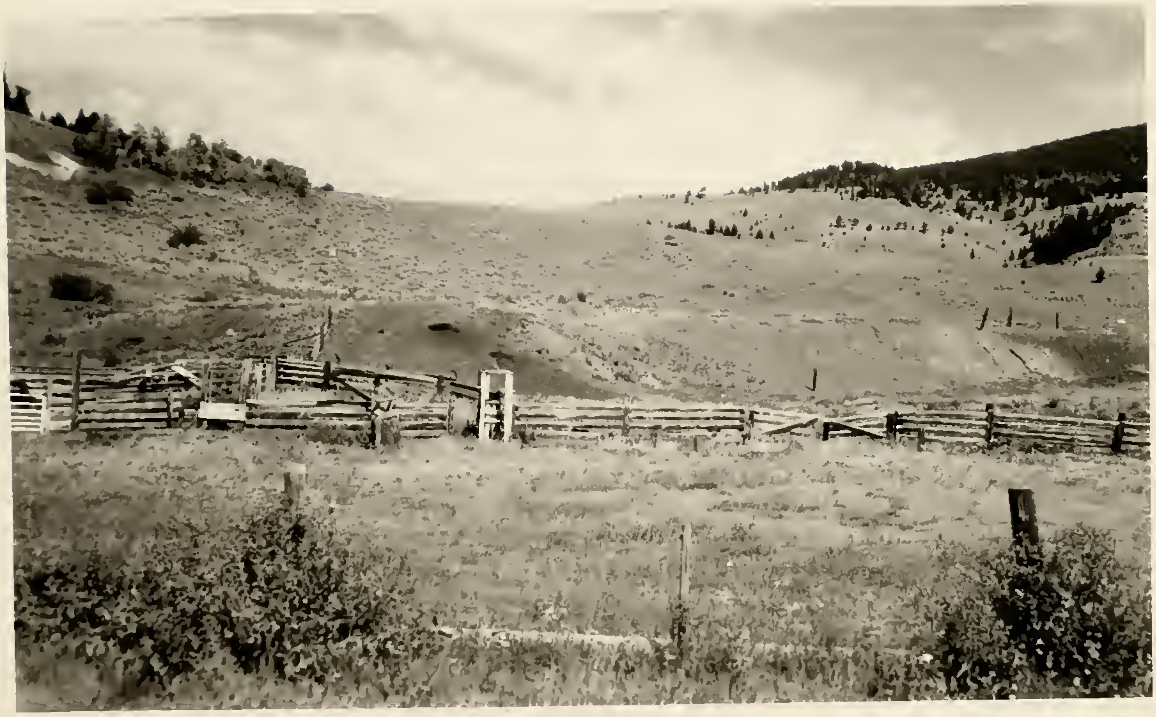
F-5
WOOD DEBRIS
F-3
6000
FARM MACHINERY DEBRIS F-2
POSTS
AUTOS, FARM MACHINERY
F-1
WOOD & BRICK DEBRIS
5975
COAL SLACK
5950
FENCE
FARM BLDG.
BATHTUB
POSTS
POSTS
80ft.
5940
CORRAL AREA
TRAIL CREEK ROAD



Contemporary corral with coal slack pile behind it at the Kountz Site. View to the north.

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 1 Locational Information

|  |  |  |
|---|---|---|
| 1.1 Site number:<br>24PA793 | 1.2 Site name/field designation:<br>Maxey Mine West | 1.3 County:<br>Park |

1.4 Township/range:

T 3S R 8E SW 1/4 SE 1/4 of Section 28

1.5 UTM:

Zone 12 520 220 Easting 5042 985 Northing

1.6 Site type:
historic coal mine

1.7 Recording status & comments:
photographed, mapped and recorded

1.8 Administrative/surface ownership:

Emigrant Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership:
Richard Kinkie

1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

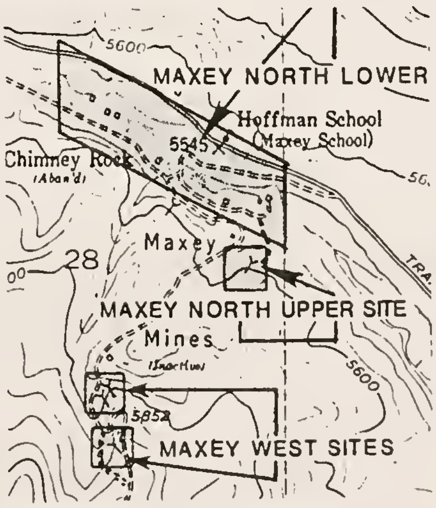
1.11 General narrative description of site:

The Maxey Mine West sits on a fir and sage-covered hillside above a rather narrow mountain valley defined by Trail Creek. This abandoned underground coal mine is notable only for a wooden coal chute below a collapsed adit and several slack piles strewn with wooden debris and a rather large ventilation fan housing. This mine was operated by the Maxey Brothers during the early part of the twentieth century.

1.12 Map reference:
Chimney Rock, Mont. 1:24000 1951

1.13 City/town: ☒ vicinity of
Livingston, MT

1.14 Access to site:
Proceed east on I-90 from Bozeman approximately 6 miles. Exit on Trail Creek Road and drive south approximately 10 miles and turn right at a road with a closed gate. There is a rather large 2-story, wood shingled house on a knoll above the creek. A road proceeds south from the house and on up the hill through the lower site and on up to Maxey West.



## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 2. Environmental Setting

Site number: 24PA793

2.1 Geographic setting:

2.2 Elevation: 1817 m 5960 ft.

The Maxey West mine is located in a steep draw above Trail Creek approximately 12 miles northwest of the Yellowstone River. The surrounding hillside is covered with grasses, low-lying bushes, and scattered clumps of Douglas fir. Trail Creek flows through a rather narrow mountain valley on the southern end of the Bridger Range and approximately 15 miles west of the Absaroka Range.

2.3 View/aspect:
north

2.4 Major drainage:
Trail Creek

2.5 Minor drainage(s):

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 3000 ft | 520 ft | perennial |
| b. | | | | |

2.7 Regional vegetation:
foothills/grassland (Payne 1973)

2.8 Local vegetation:

Douglas fir, Douglas hawthorne, roses, wheatgrass, western snowberry

2.9 Soils:

sandy and gravelly loams to silt and clay

2.10 Surface visibility/season of survey:
50%/fall

2.11 Other environmental factors pertaining to site location:
The site is located within the Trail Creek District of the Livingston Coal Field.

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA793

3.1 Condition of site:
Most of the original mining structures have been demolished or removed from the site. All that remains is a wooden loadout chute at the upper site and the remains of a ventilation fan housing at the lower site. Scattered debris and slack piles mark the site as a historical coal mining operation but the site generally lacks historical integrity.

3.2 Site significance (NRHP):
This site was part of the historic Maxey brothers mining operation; a very productive and long-lived component of the Trail Creek District of the Livingston coal field. Although little remains of historic structures the site has significance because of its relationship to adjacent Maxey brothers mines, an important early twentieth century underground mining operation along Trail Creek. Further documentation of this site will facilitate more thorough interpretation of the Maxey North site.

3.3 Impacts:
The reclamation plan calling for the backfilling of all adits and the removal of all coal slack will not have an adverse impact on existing cultural resources at this site.

3.4 Recommendations:
This site has been photographed, mapped and recorded. No further work is recommended except for more detailed mapping of historic mining structures with the assistance of local informants.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Brian Shovers, Tom Jerde, Jim Duran<br>Date: 9/87 | 3.6 Site recorded by:<br>Brian Shovers, Tom Jerde, Jim Duran<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:
See attached.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| | | |
|---|---|---|
| No. 2 - 34-36<br>3 - 1 - 13 | Description | View |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 5. Description of Historic Sites

Site number: 24PA793

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5.1 Site dimensions, how determined:

lower - 320 x 240 23,408 $m^2$
upper - 160 x 120 5,852

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5.2 Features:

Feature 1 - collapsed adit with depression
Feature 2 - coal slack dump with collapsed structure on top, possible loadout chute or tipple?
Feature 3 - collapsed adit with depression, a fan housing and wood and metal debris are located at the adit entrance
Feature 4 - collapsed with two depressions and wood debris
Feature 5 - wood and metal debris just off access road (10 x 23 ft)
Feature 6 - coal slack pile - metal debris at west side
Feature 7 - open adit with large and smaller depression
Feature 8 - corrugated metal and wood structure measuring 13 x 20 ft
Feature 9 - subsidence
Feature 10- open adit with depression
Feature 11- large coal slack area with wood debris
Feature 12- collapsed loadout chute or tipple (?) measuring 19 x 36 ft
Feature 13- collapsed wood structure measuring 16 x 20 ft
Feature 14- large steel plate with holes

---

5.3 Artifacts (observed, collected):

A fan housing was observed.

---

5.4 Historical information and evaluation:

In 1881, Daniel Maxey, an early Bozeman trader, opened the first in a series of underground coal mines in the Trail Creek District that operated until the early 1930s, supplying coal for domestic uses in nearby Bozeman. Early day operations produced quantities that never exceeded 500 tons, but between 1903 and 1910 production increased dramatically to over 32,000 tons. From this time until 1931 Maxey's four sons directed the operation of the numerous small mines immediately west of Trail Creek (Roberts 1966).

Although the historical literature provides no specific reference to the Maxey West, there is mention of a mine operated by Maxey's just below Chimney Rock, a location that corresponds to the remains of a historic underground coal mine located approximately one-half mile west of the Maxey Mines. The literature notes a total of 27 pick miners working at this location in 1908 and the existence of several new houses in the vicinity. Another source mentions another highly productive mine below Chimney Rock, operated by Anderson and Evans, where 33 miners produced over 21,000 tons of coal in 1909 (Rowe 1909).

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5.5 References

See Section 3.9.

---

5.6 Subsurface testing, results, methods, etc.

None

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## 3.9 Publications concerning site:

Bureau of Land Management Patent Records, Billings, Montana.

Calvert, W. R.
1912 The Livingston and Trail Creek Coal Fields: Park, Gallatin and Sweetgrass Counties, Montana. U.S.G.S. Bulletin 471, Government Printing Office, Washington, D. C.

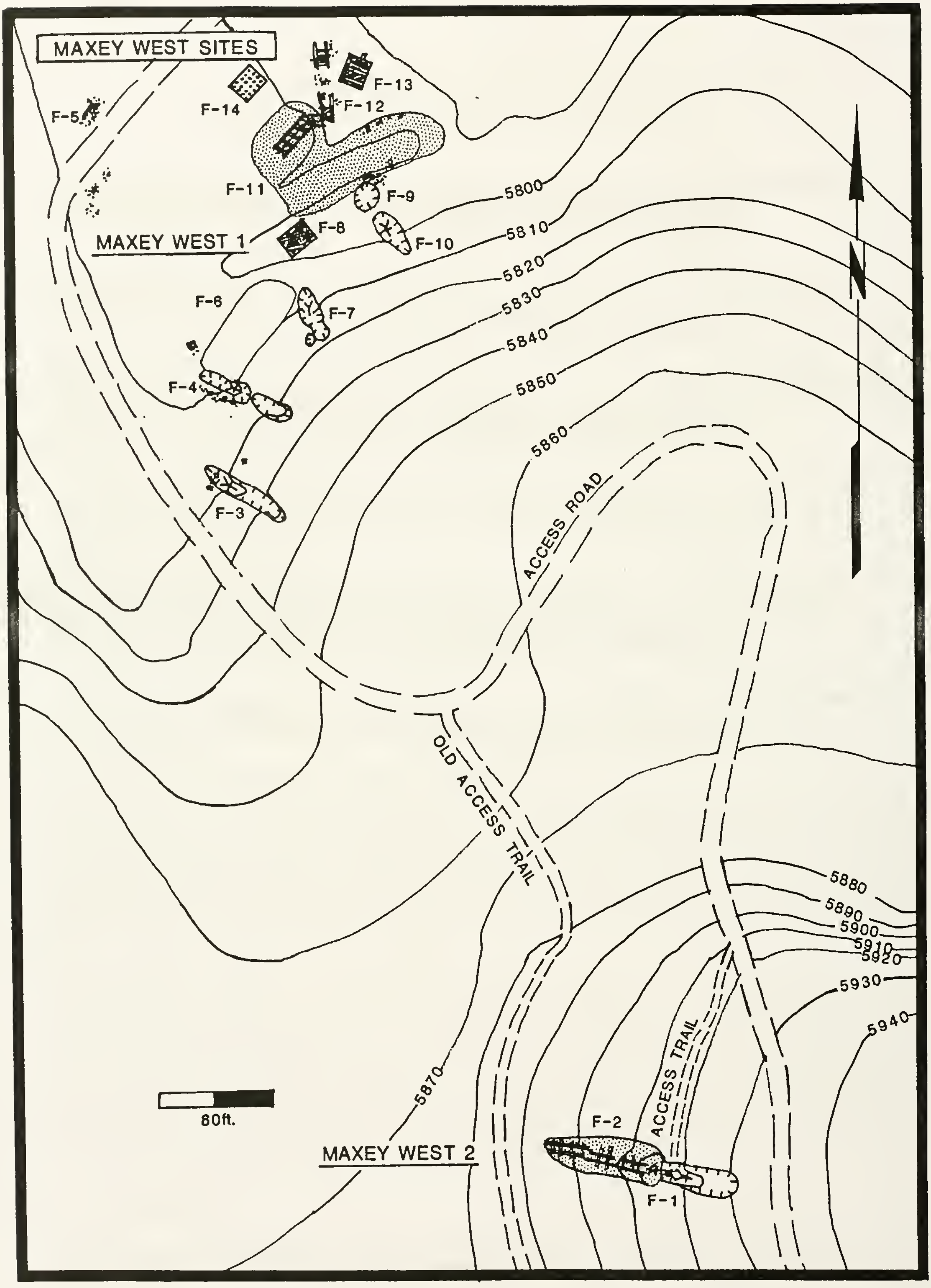
Payne, Gene F.
1973 Vegetative Rangeland Types in Montana. Montana State University, Bulletin 671, Bozeman.

Roberts, Albert E.
1966 Geology and Coal Resources of the Livingston Coal Field Gallatin and Park Counties, Montana. U.S.G.S. Paper 526-A, Government Printing Office, Washington.

Rowe, J. P.
1905 The Montana Coal Fields: Their Commercial Value, Mining Magazine. March.

Shovers, Brian
1987 A Cultural Resource Inventory and Evaluation of Selected Coal Mines in Park County Part 2, Montana. Prepared for the Montana Department of State Lands. GCM Services, Inc. Butte.

Whithorn, Bill and Doris
1976 Photo History of Livingston-Bozeman Coal Country. Livingston Enterprise, Livingston, Montana.


MAXEY WEST SITES
F-5
F-14
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F-9
MAXEY WEST 1
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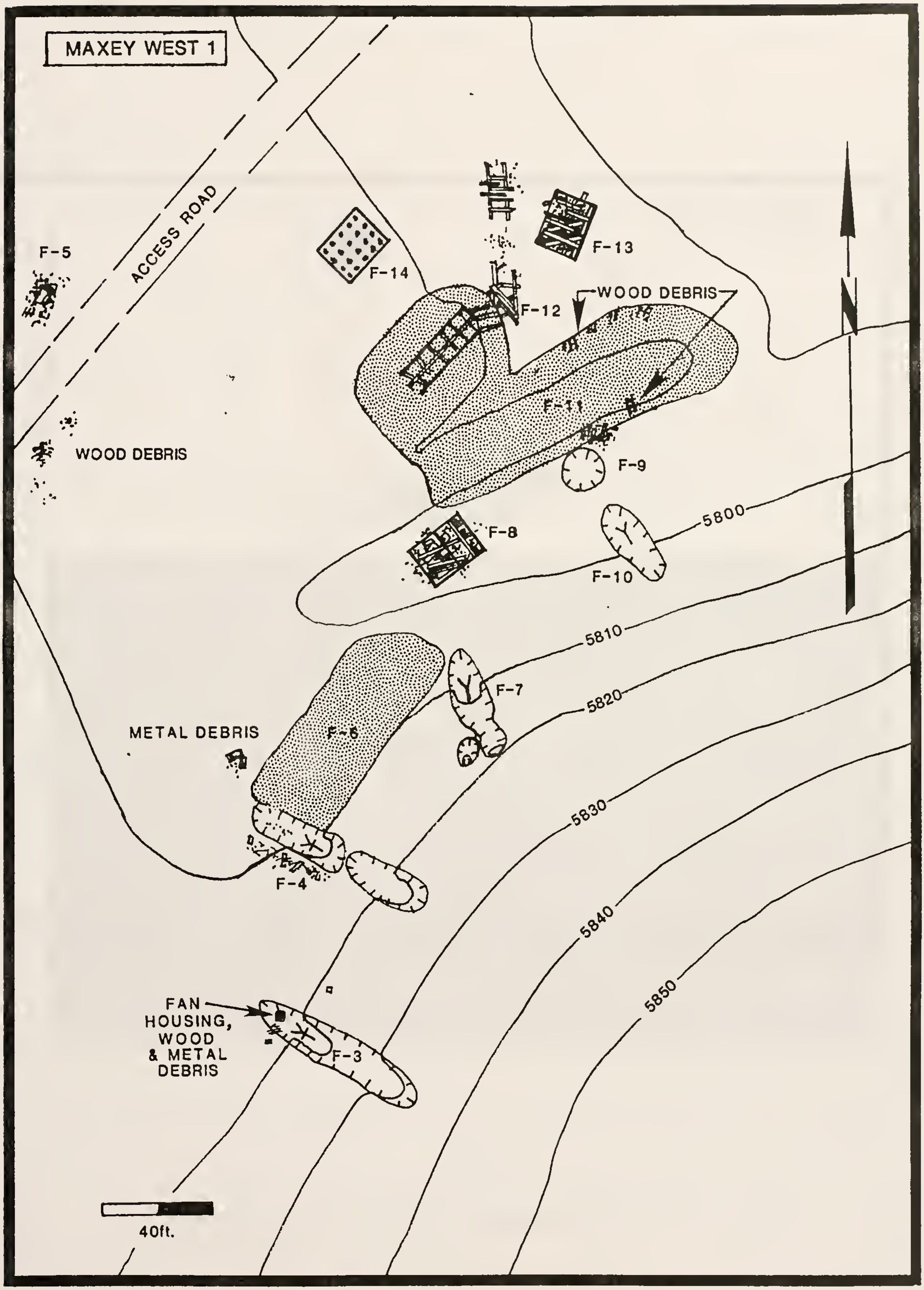
5810
5820
5830
5840
5850
5860
F-6
F-7
F-4
F-3
N
ACCESS ROAD
OLD ACCESS TRAIL
5880
5890
5900
5910
5920
5930
5940
ACCESS TRAIL
5870
80ft.
F-2
MAXEY WEST 2
F-1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ACCESS ROAD
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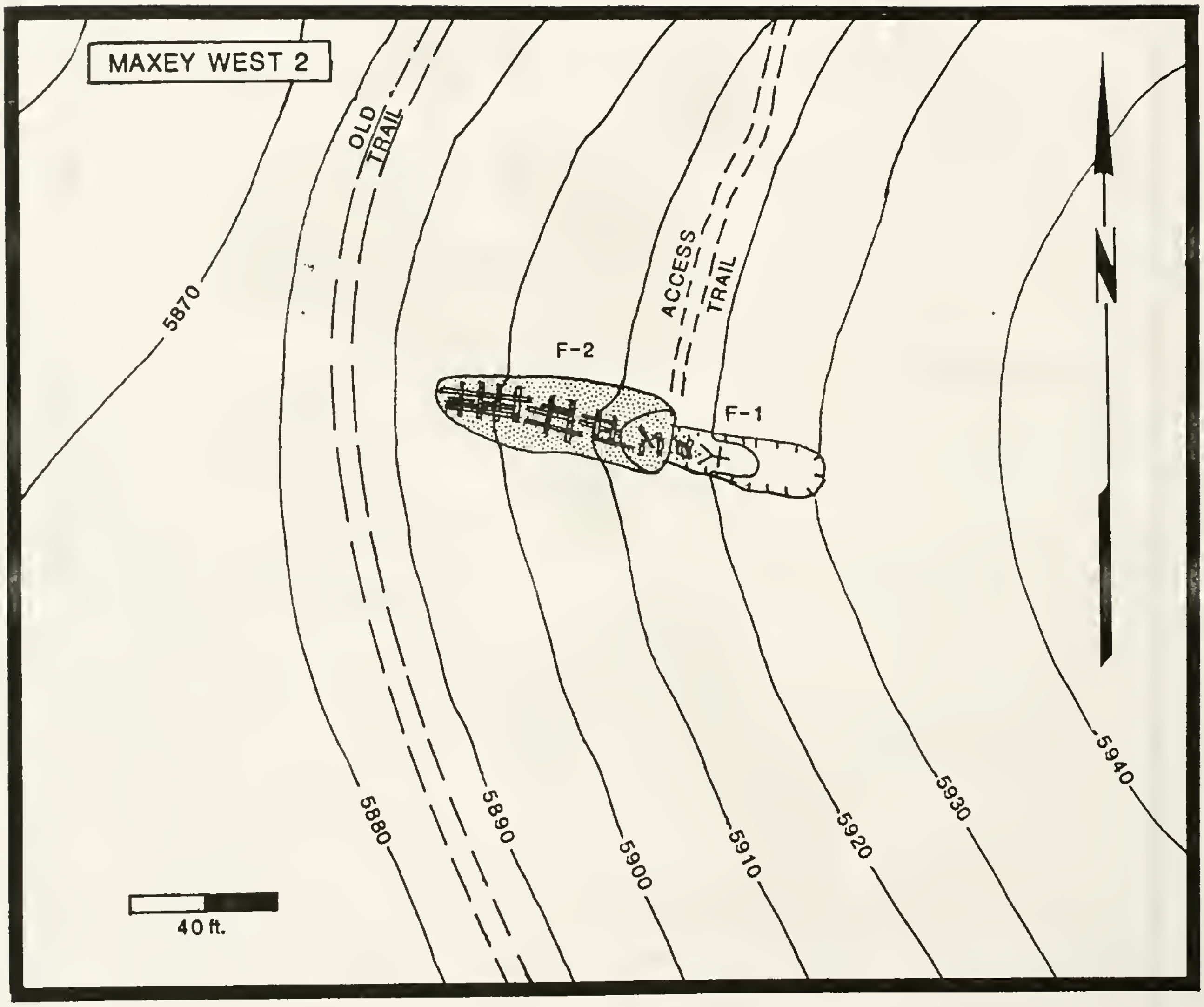
5800
5810
5820
F-7
METAL DEBRIS
F-6
F-4
5830
5840
5850
FAN HOUSING, WOOD & METAL DEBRIS
F-3
N
40ft.


MAXEY WEST 2
OLD TRAIL
ACCESS TRAIL
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N
5870
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5900
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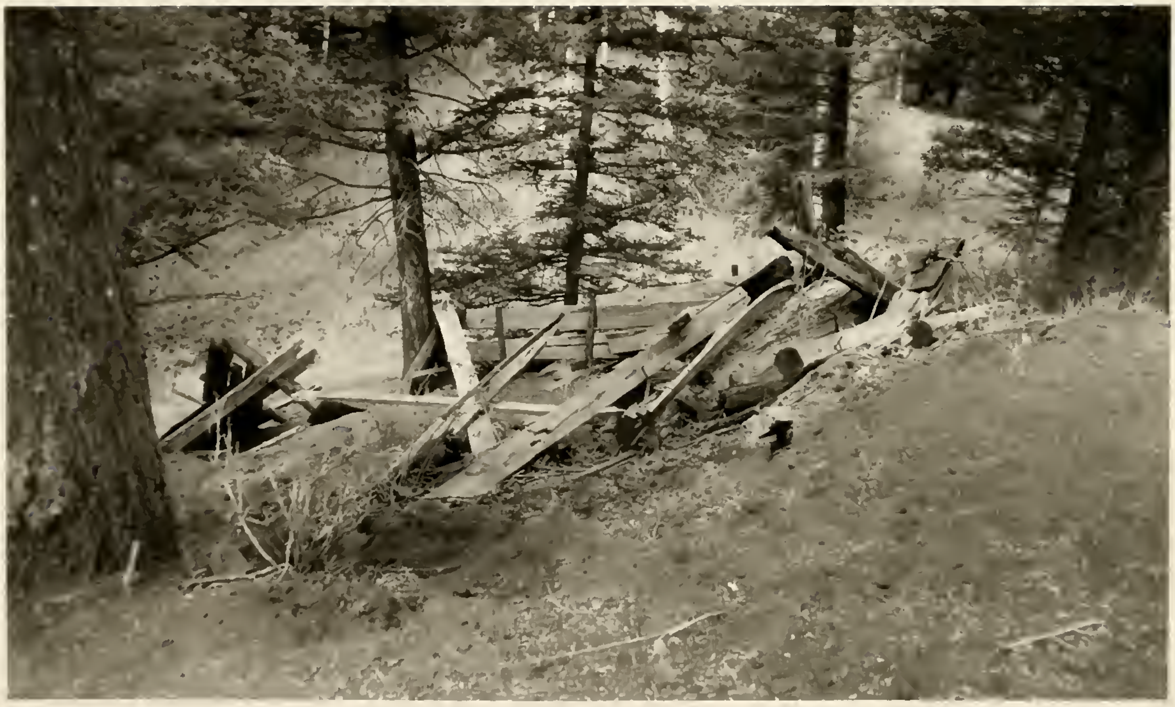
5930
5940
40 ft.



Ruins of wooden loadout chute at Maxey West Upper Site. View to the east.

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 1 Locational Information

| | | |
|---|---|---|
| 1.1 Site number:<br>24PA796 | 1.2 Site name/field designation:<br>Maxey Cellar Site | 1.3 County:<br>Park |

1.4 Township/range:

T 3S R 8E S1/2 SE1/4 NE 1/4 of Section 28

1.5 UTM:

Zone 12 520 640-520 700 Easting 5043 600-5043 680 Northing

| | |
|---|---|
| 1.6 Site type:<br>prehistoric occupation | 1.7 Recording status & comments:<br>photographed, mapped and recorded |

1.8 Administrative/surface ownership:

Emigrant Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership:
Emigrant Ranch

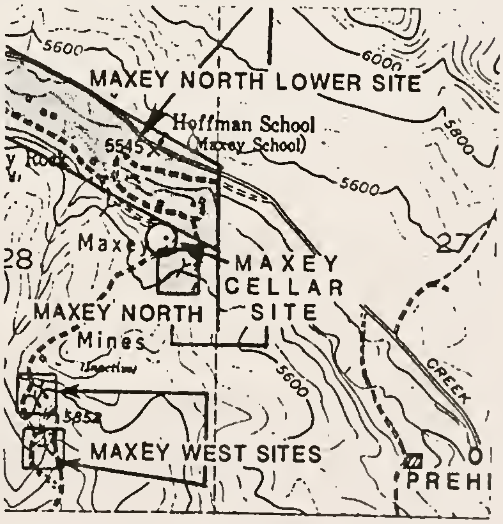
1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

1.11 General narrative description of site:
The site is a partially disturbed site on a ridge crest extending north from Chimney Rock. It is within the Maxey Mine North lower site (24PA786).

1.12 Map reference:
Chimney Rock, Mont. 1:24000 1951

1.13 City/town: ☒ vicinity of
Livingston, Mont.

1.14 Access to site:
Proceed east on I-90 from Bozeman approximately 6 miles. Exit on Trail Creek road and drive south approximately 10 miles and turn right at a road with a closed gate. There is a rather large 1-1/2 story log and wood shingled house on a knoll above the creek. A road proceeds south from the house and on up the hill through the lower site and on up to Maxey West. This site is on the ridge above the creek and on and between a curve in the road.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA796

2.1 Geographic setting:

2.2 Elevation: 1700 m 5560 ft.

The site is on a ridge crest above Trail Creek. The Trail Creek valley is a relatively wide valley which drains into the Yellowstone River, mately 12 miles to the east. The surrounding hillside is covered with grasses, low-lying bushes and scattered clumps of Douglas fir. Trail Creek flows through a rather narrow mountain valley at the southern end of the Bridger Range.

2.3 View/aspect:
The site is on a ridgetop with full exposure to the sun and no protection from the wind. The ridge slopes to the northeast.

2.4 Major drainage:
Yellowstone River

2.5 Minor drainage(s):
Trail Creek

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 175 m | 15 m | perennial |
| b. | Springs | 60 m | 2 m | perennial |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, wheatgrasses, aspen, snow bush, a few Doug fir

2.9 Soils:
10-20 cm of dark sandy and gravelly loams to silt and clay below

2.10 Surface visibility/season of survey:

50%/fall

2.11 Other environmental factors pertaining to site location:

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA796

3.1 Condition of site:
The site is buried but mining and farming activity have occurred in the area. A road runs through the site and there is a building foundation which is part of the Maxey North mines. Although the site has been disturbed there is still a large portion which is intact.

3.2 Site significance (NRHP):
The site was not tested nor were any temporally diagnostic artifacts found. Although the site has been partially disturbed most of the site appears to be subsurface and intact. The site is recommended as being potentially eligible to the National Register of Historic Places.

3.3 Impacts:
The reclamation plan calls for the demolition of two stone structures and the disposal of all wood debris. This prehistoric site will not be impacted directly unless the road through the site is altered or improved. If that is to occur the site should be tested to determine its significance.

3.4 Recommendations:
The site has been photographed, mapped and recorded. Testing is recommended to determine site significance if the site cannot be avoided.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde<br>Date: 9/87 | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran, & Lynn Fredlund<br>Date: 9/87 | 3.7 Revisions by:<br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

Shovers, Brian
1987 Cultural Resource Inventory and Evaluation of Selected Mines in Park County - II. Report prepared for Montana Department of State Lands by GCM Services, Inc., Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| No. | Description | View |
|---|---|---|
| Roll 3<br>No. 12-13 | | |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 4. Description of Prehistoric Sites

Site number: 24PA796

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4.1 Site dimensions, how determined:
an oval area, 30 m east-west x 60 m north-south
1800 $m^2$

4.2 Features:

none observed

4.3 Artifacts (observed, collected):

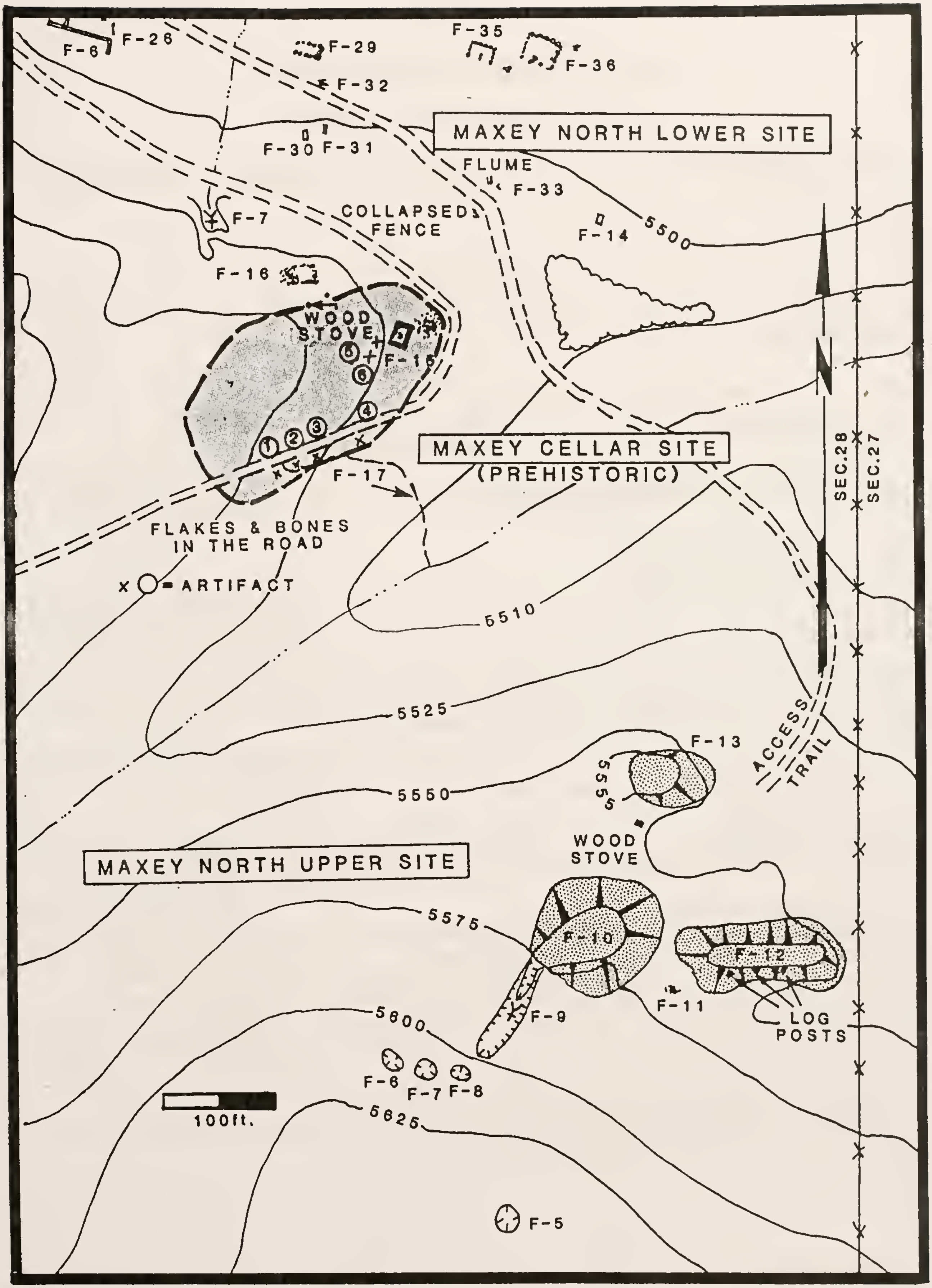
quartzite flakes, 3 brown and 1 white; 3 chert flakes, 1 red, 1 gold, 1 tan; also bone eroding in roadcut

4.4 Cultural/temporal affiliation: not known, no temporally diagnostic artifacts found

4.5 Functional inference: site is probably an occupation-campsite

5.6 Subsurface testing, results, methods, etc.

None, however, if impact is expected the site should be tested.


F-6
F-26
F-29
F-35
F-36
F-32
MAXEY NORTH LOWER SITE
F-30
F-31
FLUME
F-33
F-7
COLLAPSED FENCE
F-14
5500
F-16
WOOD STOVE
F-15
①
②
③
④
⑤
⑥
F-17
MAXEY CELLAR SITE (PREHISTORIC)
SEC.28
SEC.27
FLAKES & BONES IN THE ROAD
x ○ = ARTIFACT
5510
5525
ACCESS TRAIL
F-13
5555
5550
WOOD STOVE
MAXEY NORTH UPPER SITE
5575
F-10
F-12
F-9
F-11
LOG POSTS
5600
F-6
F-7
F-8
100ft.
5625
F-5

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 1 Locational Information

1.1 Site number: 24PA797

1.2 Site name/field designation: Old Trail Site

1.3 County: Park

1.4 Township/range:

T 3S R 8E SE 1/4 of SW 1/4 of Section 27

1.5 UTM:

Zone 12 521 540 Easting 5043 020 Northing

1.6 Site type:
prehistoric
occupation

1.7 Recording status & comments:
photographed, mapped and recorded

1.8 Administrative/surface ownership:

Emigrant Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership:
Emigrant Ranch

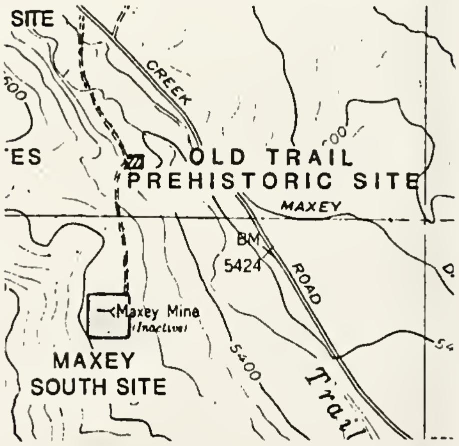
1.10 Project name:
Department of State Lands
Abandoned Mine Reclamation
Program

1.11 General narrative description of site:
The site is an undisturbed subsurface prehistoric creek terrace occupation
It is on the first terrace along the southe side of Trail Creek.

1.12 Map reference:
Chimney Rock, Mont. 1:24000 1951

1.13 City/town: ☒ vicinity of
Livingston, Mont.

1.14 Access to site:
Proceed east on I-90 from Bozeman approximately 6 miles and take the Trail Creek Road exit. Drive south on Trail Creek approximately 12 miles looking for several subsidence pits on the hillside above the creek to the right. An old wagon road crosses the creek in the vicinity of the mine. (If you pass the Nesbit ranch -- with buildings on both sides of the road -- you have come approximately one mile too far south.) Go up wagon road to south, cross creek. Site is on east side of road at first curve.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA797

2.1 Geographic setting:

2.2 Elevation: 1650 m 5400 ft.

The site is on the first terrace along the south side of Trail Creek. The Trail Creek valley drains into the Yellowstone River, approximately 12 miles to the east. The surrounding hillsides are covered with grasses, low-lying bushes and scattered clumps of Douglas fir. Trail Creek flows through a rather narrow mountain valley at the southern end of the Bridger Range.

2.3 View/aspect:
The site is on a flat slope with full sun and some protection by hills to the south.

2.4 Major drainage:
Yellowstone River

2.5 Minor drainage(s):
Trail Creek

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 15 m | 1 m | perennial |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, wheatgrasses, willows along creek, aspen

2.9 Soils:
dark loam top soil about 20 cm thick,
sandy and gravelly loams to silt and clay below

2.10 Surface visibility/season of survey:

50%/fall

2.11 Other environmental factors pertaining to site location:

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA797

3.1 Condition of site:
The site is buried and there is no evidence of any disturbance.

3.2 Site significance (NRHP):

The site was not tested nor were any temporally diagnostic artifacts found. However, undisturbed buried sites in the upper Yellowstone drainage are relatively rare and the site is recommended as being potentially eligible to the National Register of Historic Places.

3.3 Impacts:
The reclamation plan recommends backfilling subsidences, removing slack piles, and sealing open adits at the Maxey South Mine (24PA787). This prehistoric site will not be impacted directly unless substantial road improvements are made on the road to the Maxey South Mine. If the road will be graded or otherwise improved for access during reclamation the site should be tested and mitigation plans made.

3.4 Recommendations:
The site has been photographed, mapped and recorded. No further work is recommended unless road improvements will impact the site.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde, Jim Duran,<br>Brian Shovers<br>Date: 9/87 | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran,<br>& Lynn Fredlund<br>Date: 9/87 | 3.7 Revisions by:<br><br>Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

Shovers, Brian
1987 Cultural Resource Inventory and Evaluation of Selected Mines in Park County - II. Report prepared for Montana Department of State Lands by GCM Services, Inc., Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| No. | Description | View |
|---|---|---|
| 1987 Maxey West proofs | | |
| Roll 3 | | |
| 22 - 23 | site views | N, SW |

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 4. Description of Prehistoric Sites

Site number: 24PA797

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4.1 Site dimensions, how determined:

a circular area, minimally 20 ft diameter
dimensions based on extent of observed lithics, may be larger
200 $m^2$

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4.2 Features:

none observed

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4.3 Artifacts (observed, collected):

numerous flakes of quartzite, one of brown agatized wood

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4.4 Cultural/temporal affiliation: not known, no temporally diagnostic

artifacts found

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4.5 Functional inference: site is probably an occupation-campsite

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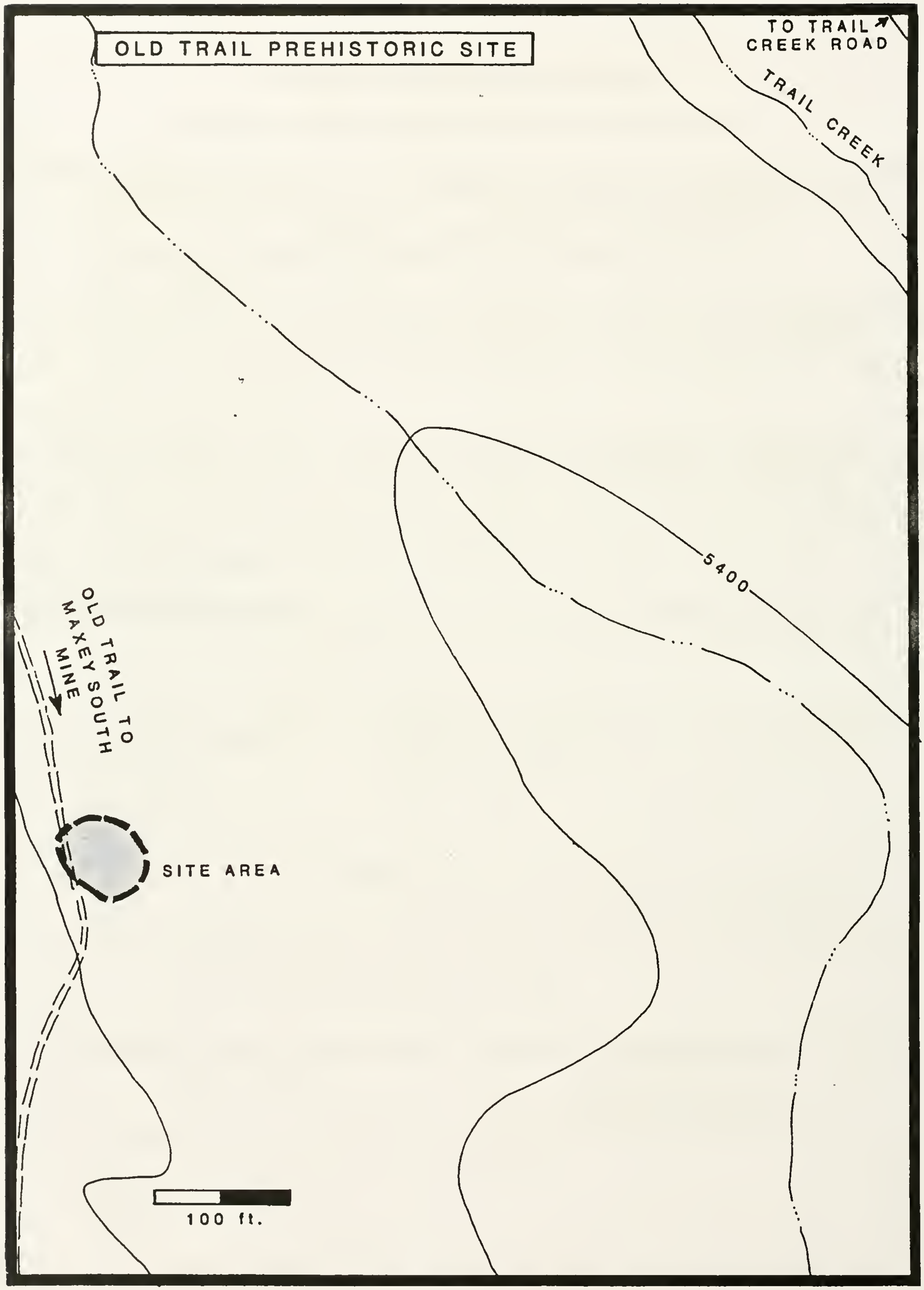
5.6 Subsurface testing, results, methods, etc.

None, however, it impact is expected the site should be tested.



OLD TRAIL PREHISTORIC SITE

MONTANA CULTURAL RESOURCE INVENTORY

Form No. 1 Locational Information

1.1 Site number:
24PA798

1.2 Site name/field designation:
Maxey Corral Site

1.3 County:
Park

1.4 Township/range:

T 3S R 8E center of NE 1/4 of Section 28

1.5 UTM:

Zone 12 520 400 Easting 5043 940 Northing

1.6 Site type:
prehistoric occupation

1.7 Recording status & comments:
photographed, mapped and recorded

1.8 Administrative/surface ownership:

Emigrant Ranch
c/o Richard Kinkie
Rt. 1, Box 516
Pray, MT 59065

1.9 Mineral ownership:
Emigrant Ranch

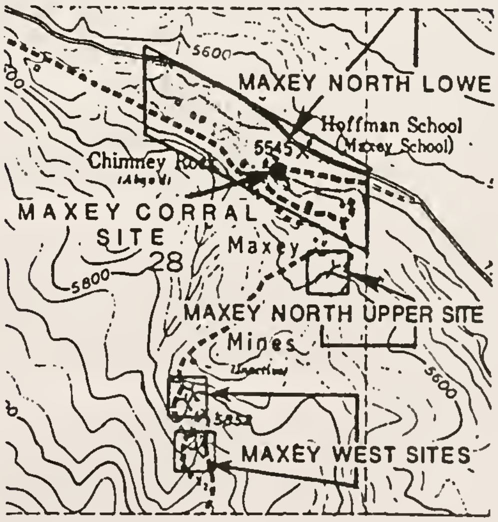
1.10 Project name:
Department of State Lands Abandoned Mine Reclamation Program

1.11 General narrative description of site:
The site is a partially disturbed subsurface prehistoric site along the second terrace of Trail Creek and around a corral. It is within the area of Maxey Mine North - lower site (24PA786).

1.12 Map reference:
Chimney Rock, Mont. 1:24000 1951

1.13 City/town: ☒ vicinity of
Livingston, Mont.

1.14 Access to site:
Proceed east on I-90 from Bozeman approximately 6 miles. Exit on Trail Creek road and drive south approximately 10 miles and turn right at a road with a closed gate. There is a rather large 1-1/2 story log and wood shingled house on a knoll above the creek. A road proceeds south from the house and on up the hill through the lower site and on up to Maxey West. This site is along the creek on both sides of the corral by the lower mines.



MONTANA CULTURAL RESOURCE INVENTORY

Form No. 2. Environmental Setting

Site number: 24PA798

2.1 Geographic setting:

2.2 Elevation: 1670 m 5480 ft.

The site is on the second terrace along the south side of Trail Creek. The Trail Creek valley is a relatively wide valley which drains into the Yellowstone River, mately 12 miles to the east. The surrounding hillside is covered with grasses, low-lying bushes and scattered clumps of Douglas fir. Trail Creek flows through a rather narrow mountain valley at the southern end of the Bridger Range.

2.3 View/aspect:
The site is on a flat slope with full sun and some protection by hills to the south.

2.4 Major drainage:
Yellowstone River

2.5 Minor drainage(s):
Trail Creek

2.6 Water sources:

| | Names | Distance | Ele. Change | Type & seasonality |
|---|---|---|---|---|
| a. | Trail Creek | 7 m | 1 m | year around |

2.7 Regional vegetation:
foothill/grassland (Payne 1973)

2.8 Local vegetation:
sagebrush, wheatgrasses, willows along creek

2.9 Soils:
sandy and gravelly loams to silt and clay below

2.10 Surface visibility/season of survey:

50%/fall

2.11 Other environmental factors pertaining to site location:

# MONTANA CULTURAL RESOURCE INVENTORY

## Form No. 3 Site Assessment and Recording Documentation

Site number: 24PA798

3.1 Condition of site:
The site is buried but mining and farming activity have occurred in the area. There is presently about 20 cm of manure over the ground surface around the corral and coal slack covers part of the site. The extent of disturbance is difficult to determine without testing.

3.2 Site significance (NRHP):
The site was not tested nor were any temporally diagnostic artifacts found. Although the condition of the site is difficult to determine without testing undisturbed buried sites in the upper Yellowstone drainage are relatively rare. The disturbance appears to have done little but cap the surface of the site and partially protect it. The site is recommended as being potentially eligible to the National Register of Historic Places.

3.3 Impacts:
The reclamation plan for the Maxey North Lower calls for the demolition of two stone structures and the disposal of all wood debris. This prehistoric site will not be impacted directly if the coal slack is removed. If the coal slack is to be removed the site should be tested to determine its significance.

3.4 Recommendations:
The site has been photographed, mapped and recorded. Testing is recommended to determine site significance if the site cannot be avoided.

| | | |
|---|---|---|
| 3.5 Site located by:<br>Tom Jerde | 3.6 Site recorded by:<br>Tom Jerde, Jim Duran,<br>& Lynn Fredlund | 3.7 Revisions by: |
| Date: 9/87 | Date: 9/87 | Date: |

3.8 Permit No.: NA

3.9 Publications concerning site:

Shovers, Brian
1987 Cultural Resource Inventory and Evaluation of Selected Mines in Park County - II. Report prepared for Montana Department of State Lands by GCM Services, Inc., Butte.

| | |
|---|---|
| 3.10 Artifact repository:<br>None collected | 3.11 Field notes/maps/photo repository:<br>GCM Services, Inc.<br>1003 S. Montana St.<br>Butte, MT 59702 |

3.12 Photos & accession No:

| No. | Description | View |
|---|---|---|
| 1987 Maxey North proofs Roll 2 | | |
| 25 | Area of site and creek | W |

## MONTANA CULTURAL RESOURCE INVENTORY

### Form No. 4. Description of Prehistoric Sites

Site number: 24PA798

4.1 Site dimensions, how determined:

a circular area, minimally 30 m diameter
dimensions based on extent of observed lithics, may be larger

900 $m^2$

4.2 Features:

none observed

4.3 Artifacts (observed, collected):

quartzite flakes, 3 brown and 1 red; 1 red chert flake; also bone eroding from cutbank

4.4 Cultural/temporal affiliation: not known, no temporally diagnostic artifacts found

4.5 Functional inference: site is probably an occupation-campsite

5.6 Subsurface testing, results, methods, etc.

None, however, it impact is expected the site should be tested.